CONNECTION PERFECTION

HDMI 4x4 Matrix

with Video Wall Scaling

User Manual	***English***
Benutzerhandbuch	***Deutsch***
Manuel Utilisateur	***Français***
Manuale	***Italiano***



No. 38131

www.lindy.com

Tested to Comply with
FCC Standards
For Home and Office Use!

© LINDY ELECTRONICS LIMITED & LINDY-ELEKTRONIK GMBH - FIRST EDITION (March 2014)

Introduction

Thank you for purchasing the LINDY HDMI Video Wall 4x4 Matrix. The HDMI Video Wall 4x4 Matrix allows the signals from four different sources to be freely selected and arranged on 4 displays (TV, Monitor or Projector), in one of three output modes; Video Wall, Matrix and dual.

This flexible feature rich product has been designed to be used in a number of different applications, such as:

- Public Advertisement
- Digital Presentation
- Broadcasting & Control
- Surveillance & Control
- Conference & Meeting Room

Package Contents

- HDMI Video Wall 4x4 Matrix
- IR Remote Control
- Multi-Country 12V 3A Power Supply (UK/EU/US/AUS)
- Driver CD
- This manual

Features

- Allows 4 HDMI Inputs to be displayed in 3 different modes across 4 HD displays
  - Video Wall Mode – Display an HDMI source across a 2x2 video wall
  - Matrix Mode – Display any HDMI source on any HDMI display
  - Dual Mode – Display 2 sources on a single HDMI display
- Seamless switching between HDMI sources
- User definable output scaling
- Controlled via On-panel controls, IR Remote, RS-232 and Telnet
- Bezel correction to aide screen blending
- Adjustable picture contrast, brightness, saturation and hue
- Memory function to store 4 user determined configurations
- Can be used with LINDY HDMI extenders to reach remote displays

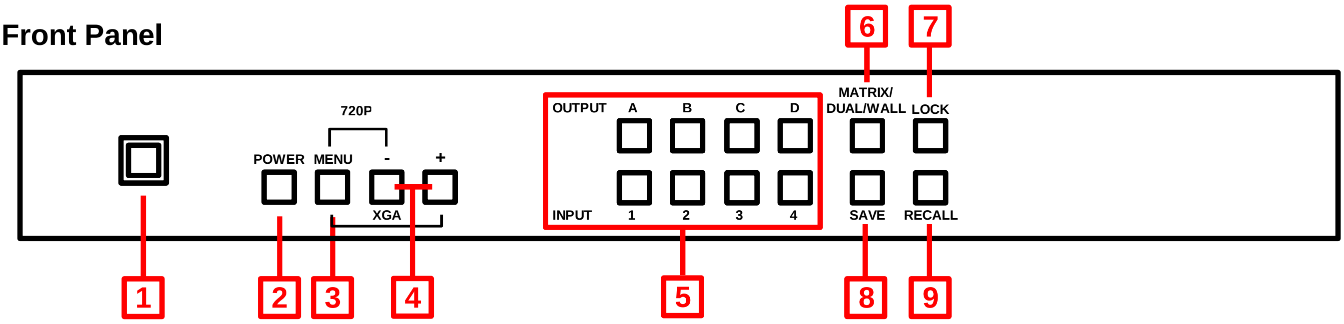
Specification

- Input ports: 4 x HDMI Female
- Input resolution: 480i – 1080p*
- Output ports: 4 x HDMI Female
- Output resolution: 480p – 1080p*
- Audio support: LPCM 2CH, 6CH, 8CH, AC3, DTS, Dolby Digital Plus, Dolby TrueHD & DTS-HD
- Control Ports: RJ45 (Telnet) & Serial 9 Way Male (RS-232)
- Video bandwidth: 225MHz/6.75Gbps
- Power consumption: 15W
- Weight: 2.2Kg
- Dimensions: 436x247x44mm (WxDxH)

*Please Note: For additional information regarding the exact resolution/timing combinations which are supported for input and output please refer to the Timings section at the end of this manual.

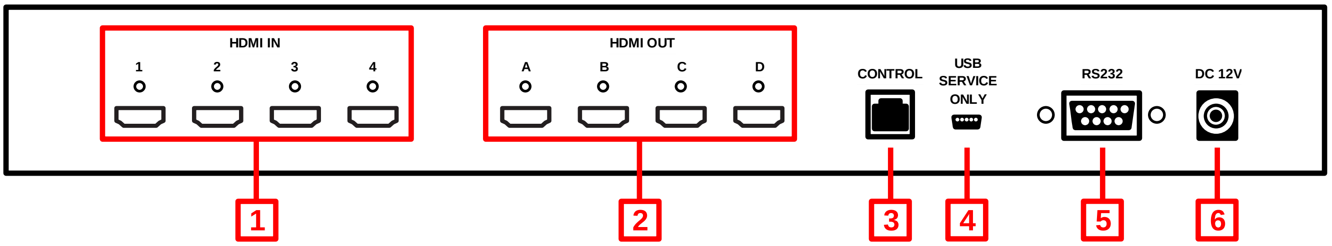
Overview & Operation

Front Panel



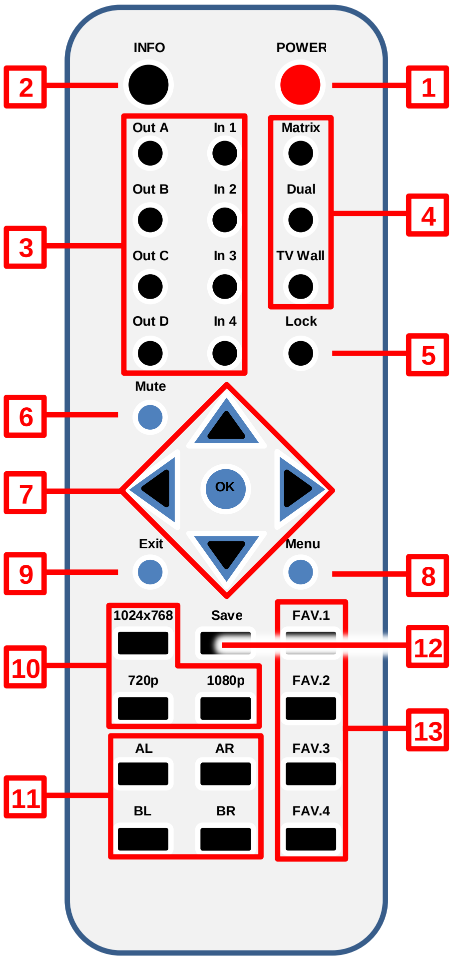
1. **IR Window**
   Receives IR commands from the supplied IR Remote
2. **Power**
   Switch the Matrix On/Off
3. **Menu**
   - Press to launch the OSD menu
   - Press to make a menu selection in the OSD
   - Press along with "-" to set the Output to 720p@60Hz
   - Press along with "+" to set the Output to 1024x768@60Hz
4. **-/+ Buttons**
   Use these buttons to move up and down in the OSD
5. **Channel Input (1 – 4) / Channel Output (A – D) Selection**
   - In Matrix Mode select an Output by pressing one of the buttons marked A – D, then select the Input to be used by pressing one of the buttons marked 1 – 4. Repeat this for each Output. Each Output can independently display any of the Inputs according to your selection.
   - In Dual Mode there are two groups, Dual A (Outputs A & B) and Dual B (Outputs C & D). To set up Dual A select Output A then select the first input by pressing one of the buttons marked 1 – 4. Now select Output B then select the second input by pressing one of the buttons marked 1 – 4, without duplicating your initial selection. Your two input selections will now be shown on Output A and Output B. For Dual B repeat this for Output C and D as required. Press and hold Output A or B for 3 seconds to select the audio input for Dual A, or Output C or D to select the audio input for Dual B.
   - In Video Wall Mode select the input to be displayed across the 4 displays (2x2 configuration) by selecting Input 1 – 4. Audio will be available through Output A only.
6. **Matrix / Dual / Wall Mode**
   Press this button to switch between the different modes. When Matrix Mode is selected the button will stay constantly illuminated, for Dual Mode the button will not illuminate and for Video Wall Mode the button will blink on/off.
7. **Lock**
   Press this button once to lock the keypad and remote control, press and hold the button again for 3 seconds to release the lock.
8. **Save**
   Once you have configured the Matrix (Mode selection, Input/Output combinations etc.) press the Save button, the Input 1 – 4 buttons will then illuminate. Now press one of the Input buttons to save your configuration. Pressing Input 1 would save the configuration to slot 1, this can then be recalled using the Recall button (see below) or by pressing Fav.1 on the IR Remote.
9. **Recall**
   Press the Recall button, the Input 1 – 4 buttons will then illuminate. Now select which saved configuration you want to recall by pressing Input button 1/2/3/4.

Rear Panel



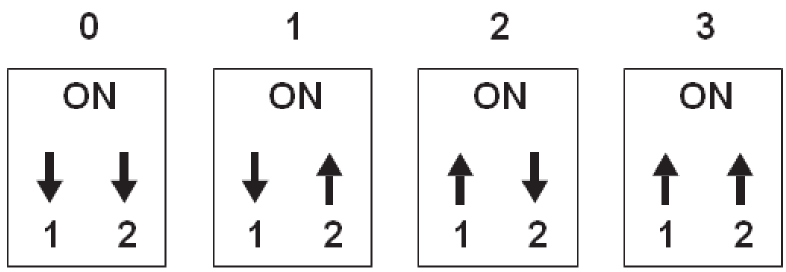
1. **HDMI In 1 – 4**
   Connect your HDMI sources devices such as PC, Blu-ray etc to these ports
2. **HDMI Out A – D**
   Connect your HDMI displays to these ports
3. **Control**
   Connect to an Ethernet network for Telnet control
4. **USB Service Only**
   Reserved for Factory use only
5. **RS-232**
   For connection to a PC/Notebook or Remote Control Processing unit
6. **DC 12V**
   Connect the supplied 12V power supply here

Remote Control

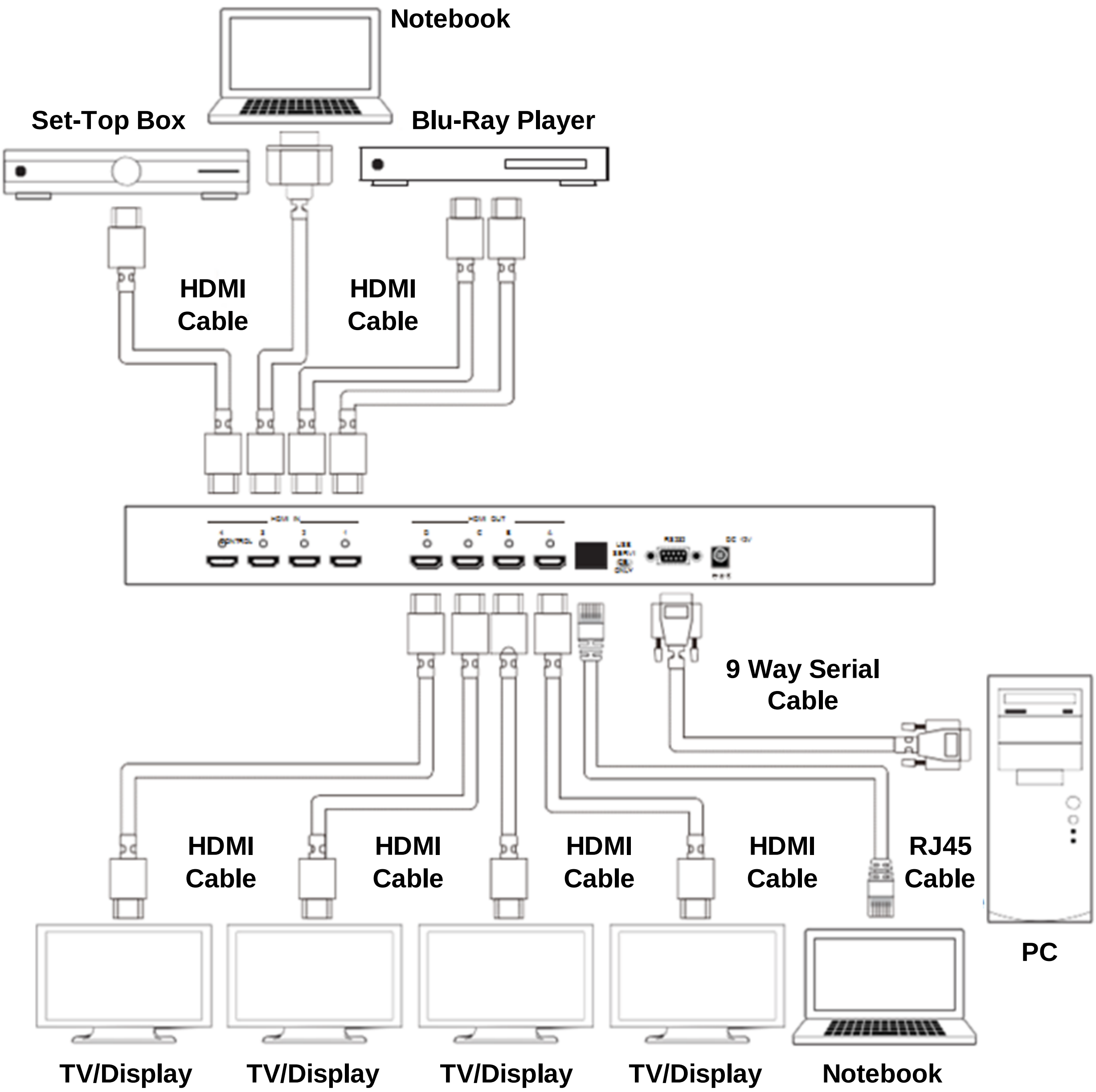


1. **Power**
   Switch the Matrix On/Off
2. **Info**
   Press to display the Matrix's firmware version
3. **Output A – D & Input 1 – 4**
   Provide the same function as the front panel buttons
4. **Matrix/Dual/Wall Mode Selection**
   Provide the same function as the front panel buttons
5. **Lock**
   Provides the same function as the front panel button
6. **Mute**
   Press to Mute audio playback from the HDMI output port
7. **Navigation/Selection Buttons**
   Press to navigate the OSD and make selections
8. **Menu**
   Press to enter the OSD menu
9. **Exit**
   Press to exit the OSD menu
10. **Output Resolution**
    Press to quickly change the Output resolution
11. **Dual Mode Audio**
    Switch between Left/Right input source audio, for Dual A or Dual B
12. **Save**
    Provides the same function as the front panel button
13. **FAV. 1 – 4**
    Recalls the settings saved to the corresponding save location

By removing the battery cover of the IR Remote you can access a set of dip switches which allow you to change the default IR address, as may be required if multiple Matrixes' are used in close proximity or if there is interference with another IR device. Before changing the dip switch setting from its default of 0, please change the IR setting on the Matrix first. Enter the OSD and then select Others, now select IR Address and select the desired address 0 – 3.



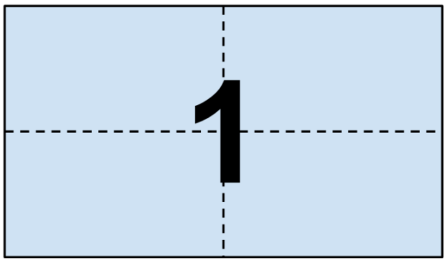
Connection Diagram



Video Output Modes

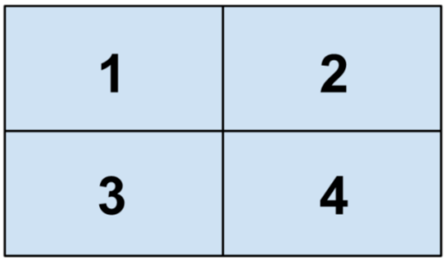
Video Wall

Displays a single user definable HDMI source across a 2x2 video wall.



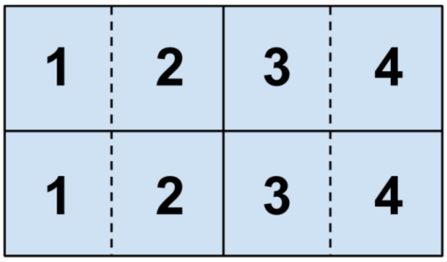
Video Matrix

Display any HDMI source on any HDMI display.



Dual Output

Display 2 HDMI sources on a single HDMI Output. Outputs are grouped as follows Dual A (Outputs A & B) and Dual B (Outputs C & D).

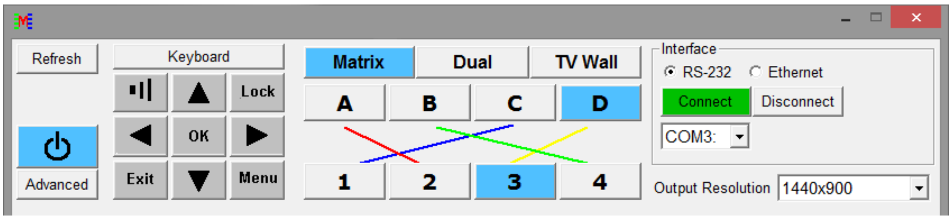


RS-232, Telnet & OSD Control

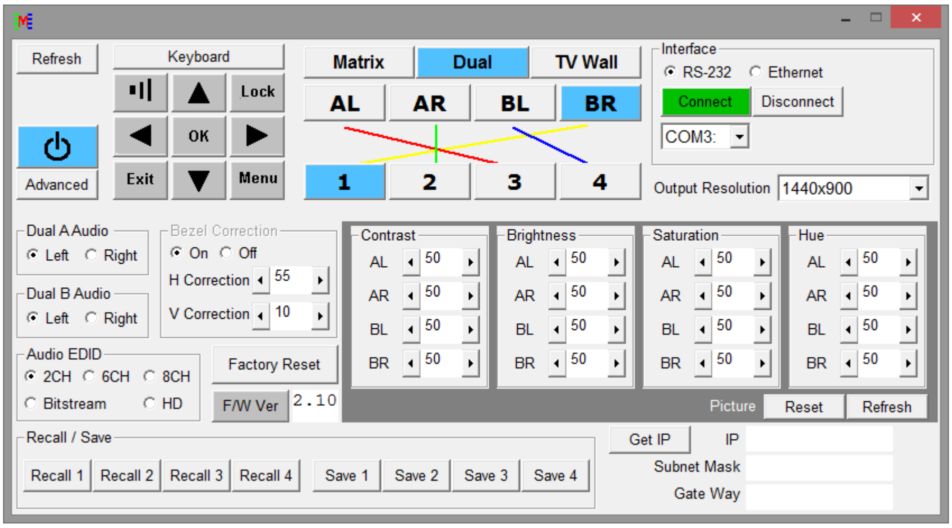
RS-232 & Telnet Control

The Matrix may also be controlled via PC software which can be downloaded from www.lindy.com, or using Hyper Terminal. The PC software provides a graphical interface for control as shown below:

Simple Control Panel



Full Function Control Panel



RS-232 Protocols

Baud Rate: 115200bps Data Bit: 8 bits
Parity: None
Flow Control: None
Stop Bit: 1

Video Wall Matrix	
PIN	Assignment
1	NC
2	TxD
3	RxD
4	NC
5	GND
6	NC
7	NC
8	NC
9	NC

► ◄

Remote Controller (PC)	
PIN	Definition
1	NC
2	RxD
3	TxD
4	NC
5	GND
6	NC
7	NC
8	NC
9	NC

Telnet Setting

Use TCP/IP (Port 23) for Telnet communication.

RS-232 & Telnet Commands

Command	Active	4x4 Matrix Return
AUA001	Dual A Audio channel in Left side	AUA001
AUA002	Dual A Audio channel in Right side	AUA002
AUA999	Check Dual A audio channel status	AUA???
AUB001	Dual B Audio channel in Left side	AUB001
AUB002	Dual B Audio channel in Right side	AUB002
AUB999	Check Dual B audio channel status	AUB???
AUD000	Audio output Off	AUD000
AUD001	Audio output On	AUD001
AUD999	Check audio on/off status	AUD???
AUE000	Audio EDID is LPCM 2CH	AUE000
AUE001	Audio EDID is LPCM 6CH	AUE001
AUE002	Audio EDID is LPCM 8CH	AUE002
AUE003	Audio EDID is BITSTREAM	AUE003
AUE004	Audio EDID is HD	AUE004
AUE999	Check audio EDID setting	AUE???
BEZ000	Bezel Correction OFF	BEZ000
BEZ001	Bezel Correction ON	BEZ001
BEZ999	Check bezel correction on/off status	BEZ???
BEH???	Horizontal (H) Bezel correction???=000 - Maximum	BEH???
BEH998	Check the current Horizontal(H) Bezel correction Maximum value	BEH???
BEH999	Check the current Horizontal(H) Bezel correction setting value	BEH???
BEV???	Vertical (V) Bezel correction???=000- Maximum	BEV???
BEV998	Check the current Vertical(V) Bezel correction Maximum value	BEV???
BEV999	Check the current Vertical(V) Bezel correction setting value	BEV???
BRI???	Setting Brightness	No response
	???=000-100 for matrix mode	
	???=(000-100)+200*(OUT No.-1) for dual/tv wall mode	
	For example: OUT B set the Brightness value to 57 =(57)+200*(2-1) = 257	
BRI99?	Check current Brightness value	BRI???
	99?=999 for matrix mode	
	99?=991-994=OUT1-4 for dual/tv wall mode	
CAL???	RECALL FAV. ???=001-004=FAV.1-4	CAL???

On-Screen-Display (OSD) Menu

Main Menu		Sub Menu	Adjustments	Default
PICTURE (1)	ALL	CONTRAST	0 - 100	50
		BRIGHTNESS	0 - 100	50
		SATURATION	0 - 100	50
		HUE	0 - 100	50
	DUAL	DUAL AL		
		DUAL AR		
		DUAL BL		
		DUAL BR		
	TV WALL	OUT A		
		OUT B		
		OUT C		
		OUT D		
	D/T	RESET		
	ALL	RESET ALL		
		EXIT		
OUTPUT RESOLUTION		480p		720p60
		576p		
		720p50		
		720p60		
		1080i50 (2)		
		1080i60 (2)		
		1080p24		
		1080p50		
		1080p60		
		1024x768		
		1280x800		
		1280x1024		
		1366x768		
		1440x900		
		1600x900		
		1600x1200		
		1680x1050		
		1920x1200		
		EXIT		
AUDIO EDID (3)		LPCM 2CH		LPCM 2CH
		LPCM 6CH		
		LPCM 8CH		
		BIT-STREAM		
		HD		
		EXIT		
OSD SETTINGS		POSITION	LEFT T	LEFT T
			RIGHT T	
			LEFT B	
			RIGHT B	
		H OFFSET	0 - 20	10
		V OFFSET	0 - 20	10
		TRANSPARENCY	0 - 9	4

Main Menu	Sub Menu	Adjustments	Default
OSD SETTINGS (CONTINUED)	MENU TIMEOUT	5 - 50, OFF (4)	8
	INFO.TIMEOUT	5 - 50, OFF	8
	INFO.DISPLAY	ON	ON
		OFF	
	BRIEF INFO	ON	OFF
		OFF	
	EXIT		
HDCP	INPUT (5)	ACCEPT	ACCEPT
		NOT ACCEPT	
	OUTPUT (6)	FOLLOW INPUT	FOLLOW INPUT
		ALWAYS ON	
	EXIT		
BEZEL CORRECTION (7)	CORRECTION	ON	OFF
		OFF	
	H CORRECTION	0 - by output resolution	0
	V CORRECTION	0 - by output resolution	0
	EXIT		
RECALL / SAVE (8)	RECALL	CANCEL	CANCEL
		FAV. 1	
		FAV. 2	
		FAV. 3	
		FAV. 4	
	SAVE	CANCEL	CANCEL
		FAV. 1	
		FAV. 2	
		FAV. 3	
		FAV. 4	
	EXIT		
ETHERNET	IP MODE	DHCP	DHCP
		STATIC	
	STATIC SET	IP	IP
		MASK	
		GATE	
	BYTE1		192
	BYTE2		168
	BYTE3		5
	BYTE4		155
	RE-LINK (9)		
	TIMEOUT (Min.) (10)	5 - 60	10
		OFF	
	EXIT		
OTHERS	IR ADDRESS (11)	0 - 3	0
	EXIT		
FACTORY DEFAULT	YES		NO
	NO		
	EXIT		
INFORMATION	IN/OUT RESOLUTION		
	SOURCE HDCP/AUDIO		
	OUT MODE		
	FIRMWARE VER		
	EXIT		
EXIT			

Notes:

1 Picture

- In Matrix mode, all four pictures are adjusted simultaneously.
- In Dual/TV Wall mode, each picture can be adjusted individually and supports the last memory feature.

2 Output

In Matrix mode if the Output is set to 1080i@50Hz or 1080i@60Hz Input 4 will be disabled.

3 AUDIO EDID

Embedded input audio EDID contents:

- LPCM 2CH = LPCM 2CH
- LPCM 6CH = LPCM 2CH/ 6CH
- LPCM 8CH = LPCM 2CH/ 6CH/ 8CH
- BITSTREAM = LPCM 2CH, AC3, DTS
- HD = LPCM 2CH/ 6CH/ 8CH, AC3, DTS, Dolby Digital Plus, DTS-HD

4 TIMEOUT

Setting to OFF means that MENU and INFO will continuously be shown on the screen.

5 HDCP INPUT

- ACCEPT: Supports source using HDCP, this is normal source setting.
- NOT ACCEPT: Will not accept a source using HDCP.

6 HDCP OUTPUT:

- FOLLOW INPUT: If the Input source uses HDCP the Output signal will support HDCP. If the Input source does not use HDCP the Output signal will not support HDCP. When in Dual mode, if either of the Input sources (Left or Right) uses HDCP, the output will support HDCP.
- ALWAYS ON: When using this setting all connected TV/Monitors must support HDCP. Using displays which do not support HDCP will result in flashing image/no image when HDCP content is used.

7 BEZEL CORRECTION

This setting is only supported in TV Wall mode, after adjustment the system will save the setting until the next time it is changed.

8 SAVE/RECALL

Used to SAVE/RECALL input/output settings and all other system settings such as bezel correction or picture adjustment.

9 Ethernet RE-LINK:

After the setting up the system use this setting to re-link/refresh the network connection.

10 Ethernet TIMEOUT:

Select OFF to end the time out functions of either the Ethernet or Telnet connection.

Timings

Supported Input Timings

Support Timing
480i@59
480p@60
576i@50
576p@50
720p@25,30,50,60,
1080i@50,60
1080p@24,25,30,50,60
640x480@60,72,75,85
720x400@70
800x600@56,60,72,75,85
1024x768@60,70,75,85
1152x864@70,75
1280x720@60cvt
1280x768@60RB,60,75
1280x800@60RB,60,75
1280x1024@60,60cvt,75
1360x768@60
1366x768@60RB,60
1400x1050@60RB,60
1440x900@60RB,60,75
1600x900@60RB
1600x1200@60
1680x1050@60RB,60
1920x1200@60RB

Supported Output Timings

Support Timing
480p60
576p50
720p50
720p60
1080i50 (Matrix Mode Only)
1080i60 (Matrix Mode Only)
1080p24
1080p50
1080p60
1024x768@60
1280x800@60
1280x1024@60
1366x768@60
1440x900@60
1600x900@60RB
1600x1200@60
1680x1050@60
1920x1200@60RB

Einführung

Dieser HDMI 2x2 Videowand Matrix Umschalter und Scaler erlaubt das freie Umschalten zwischen 4 HDMI Eingangssignalen und 4 HDMI Ausgangssignalen. Er kann sowohl als Matrix-Umschalter als auch als Scaler sowie im gemischten Betrieb eingesetzt werden.

Dieser vielseitige und flexible Umschalter ist ideal geeignet für viele Einsatzzwecke wie z.B.:

- Öffentliche Videowände (Digital Signage)
- Digitale Präsentationen
- Video Broadcasting & Monitoring
- Video Überwachung
- Konferenzraumtechnologie

Lieferumfang

- HDMI Video Wall 2x2 Matrix
- IR Fernbedienung
- Multi-Country Netzteil 100…240VAC / 12V 3A mit Steckeradaptern für Euro, UK, US, AUS
- Treiber-CD
- Dies Handbuch

Eigenschaften

- Schaltet 4 HDMI Eingänge in 3 Modi auf 4 HDMI Ausgänge um
  - Videowand Modus – Skaliert einen HDMI Eingang auf eine 2x2 Videowand
  - Matrix Modus – Schaltet unabhängig zwischen allen 4 Ein- und Ausgängen um
  - Dual Modus – Zeigt 2 HDMI Eingänge auf einem Display an
- Unabhängiges Umschalten zwischen den 4 HDMI Eingängen
- Skalierung des Ausganges einstellbar durch Anwender
- Steuerbar über Gerätetasten, Fernbedienung, RS232 und Telnet
- Rahmenkorrekturoption zur Korrektur der Verzerrung durch die Displayrahmen
- Einstellbarer Bildkontrast, Helligkeit, Farbsättigung und Farbton
- Speichermöglichkeit für 4 Anwendereinstellungen
- Unterstützt LINDY HDMI Extender zum Anschluss der Displays / Signalquellen

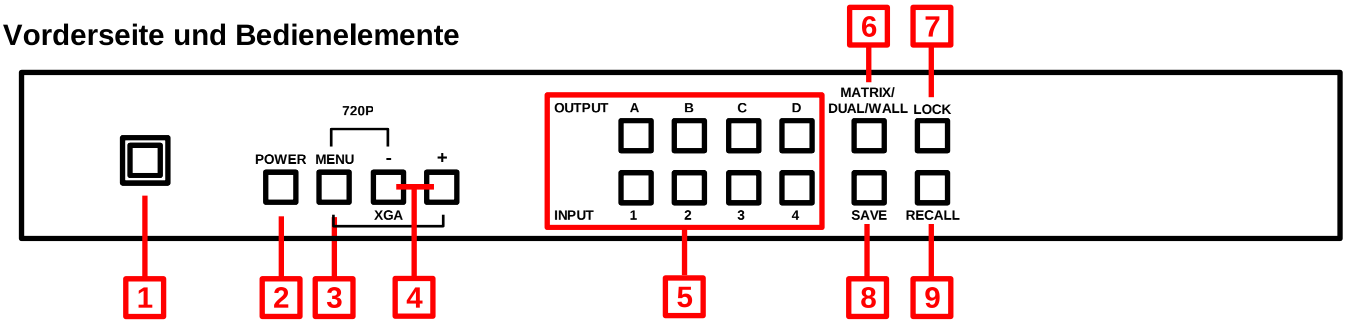
Spezifikationen

- Eingänge: 4 x HDMI Buchse
- Unterstützte Eingangsauflösungen: 480i – 1080p*
- Ausgänge: 4 x HDMI Buchse
- Unterstützte Ausgangsauflösungen: 480p – 1080p*
- Audiounterstützung: LPCM 2CH, 6CH, 8CH, AC3, DTS, Dolby Digital Plus, Dolby TrueHD & DTS-HD
- Steuerungseingänge: RJ45 (Telnet), Serielle Sub-D 9 Pol Steckerbuchse (RS232)
- Videobandbreite: 225MHz/6.75Gbps
- Leistungsaufnahme: ca. 15W
- Gewicht: ca. 2.2Kg
- Abmessungen: ca. 436x247x44mm (WxDxH)

*Hinweis: Bitte beachten Sie für exakte Angaben die Auflösungs-/Timing-Tabelle am Ende des Handbuches.

Installation und Betrieb

Vorderseite und Bedienelemente



1. **IR Sensorfeld**
   Der Sensor für die IR Fernbedienung liegt hinter diesem Fenster
2. **POWER**
   EIN/AUS Schalter
3. **MENU**

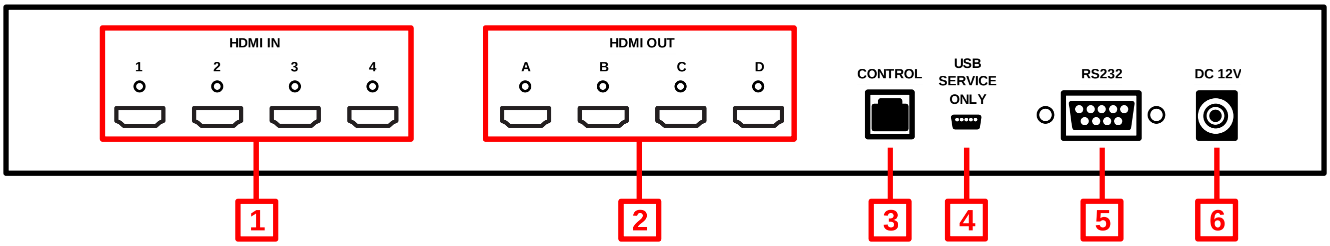
- Drücken ruft das OSD Menü (Bildschirmmenü) auf
- Drücken um im OSD Menü eine Auswahl zu treffen
- Gleichzeitiges Drücken mit der “-“ Taste stellt den HDMI Ausgang auf 720p@60Hz ein
- Gleichzeitiges Drücken mit der “+“ Taste stellt den HDMI Ausgang auf 1024x768@60Hz ein

4. **- / + Tasten**
   Drücken dieser Tasten um im OSD auf und ab zu navigieren
5. **Kanalwahltasten INPUT (1 – 4) / OUTPUT (A – D)**

- **Matrix Modus**: Drücken Sie zuerst einen Ausgang Taste A – D, und dann den zugehörigen Eingang Taste 1 – 4. Widerholen Sie diese Schritte für alle Ausgänge.
- **Dual Modus**: Die Ausgänge A und B sind zur Gruppe Dual A und die Ausgänge C und D zur Gruppe Dual B zusammen gefasst. Um Dual A zu programmieren drücken Sie Output A und dann einen der Eingänge 1 - 4.Drücken Sie nun Output B und einen anderen der Eingänge 1 – 4. Ihre beiden gewählten Eingänge werden nun auf den Ausgängen A und B gezeigt. Wiederholen Sie diesen Setup für Dual B mit den Ausgängen C und D. Drücken und halten Sie Output A oder B für etwa 3 Sekunden und wählen Sie das zugehörige Audiosignal für Dual A oder Dual B aus.
- **Videowand Modus**: Wählen Sie einfach nur den Eingangsport 1 – 4 aus um dessen Bildsignal auf die 2x2 Monitorwand zu verteilen. Das Audiosignal wird ausschließlich über OUTPUT A ausgegeben.

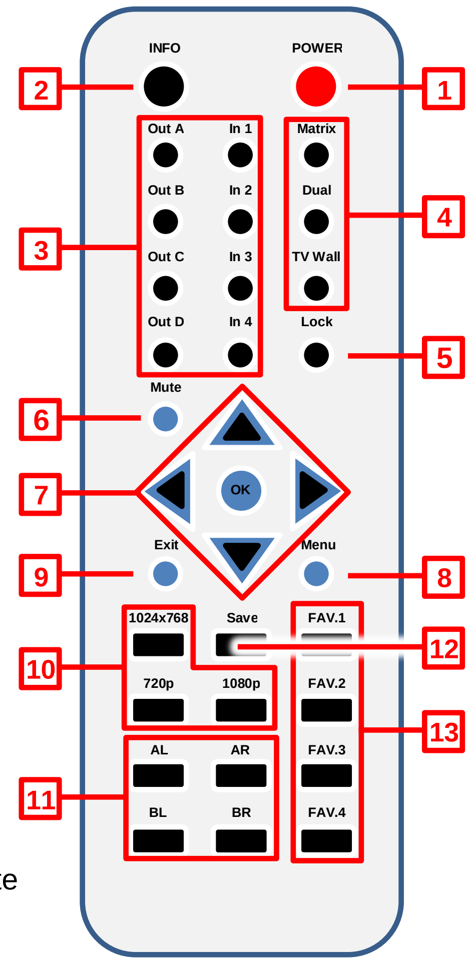
6. **MATRIX / DUAL / WALL** Modus
   Drücken Sie diese Taste um zwischen den Modi umzuschalten. Wenn der Matrix Modus gewählt ist leuchtet die Taste permanent. Im Dual Mode Betrieb ist die Taste dunkel, im Videowand Mode blinkt die Taste.
7. **LOCK**
   Drücken dieser Taste sperrt die Eingabe aller Tasten sowie die Fernbedienung. Drücken und Halten für 3 Sekunden entsperrt.
8. **SAVE**
   Wenn Sie eine Einstellung abspeichern wollen drücken Sie die SAVE Taste. Die INPUT Tasten 1 – 4 leuchten auf, wählen Sie die unter der Sie das Setup speichern wollen.
9. **RECALL**
   Wenn Sie eine gespeicherte Einstellung aufrufen wollen drücken Sie die RECALL Taste. Die INPUT Tasten 1 – 4 leuchten auf, drücken Sie die entsprechende Taste.

Rückseite und Anschlüsse



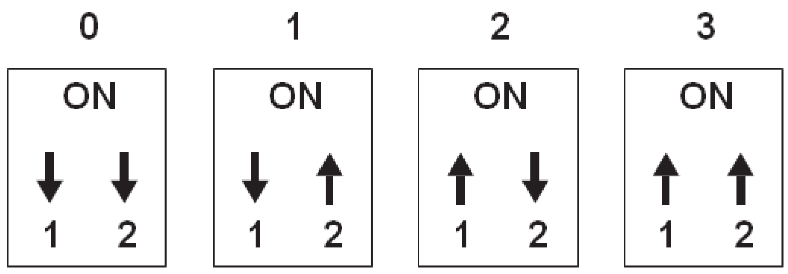
1. **HDMI In 1 – 4**
   Zum Anschluss der HDMI Signalquellen wie PC, Blu-ray etc
2. **HDMI Out A – D**
   Anschlüsse für Ihre HDMI Displays / Projektoren
3. **Control**
   RJ45 Netzwerkanschluss für Telnet Bedienung
4. **USB Service Only**
   Reserviert für Updates etc.
5. **RS232**
   Zur Fernsteuerung über RS232 z.B. von PC/Notebook oder Remote Control Device
6. **DC 12V**
   Netzteilanschluss

IR Fernbedienung

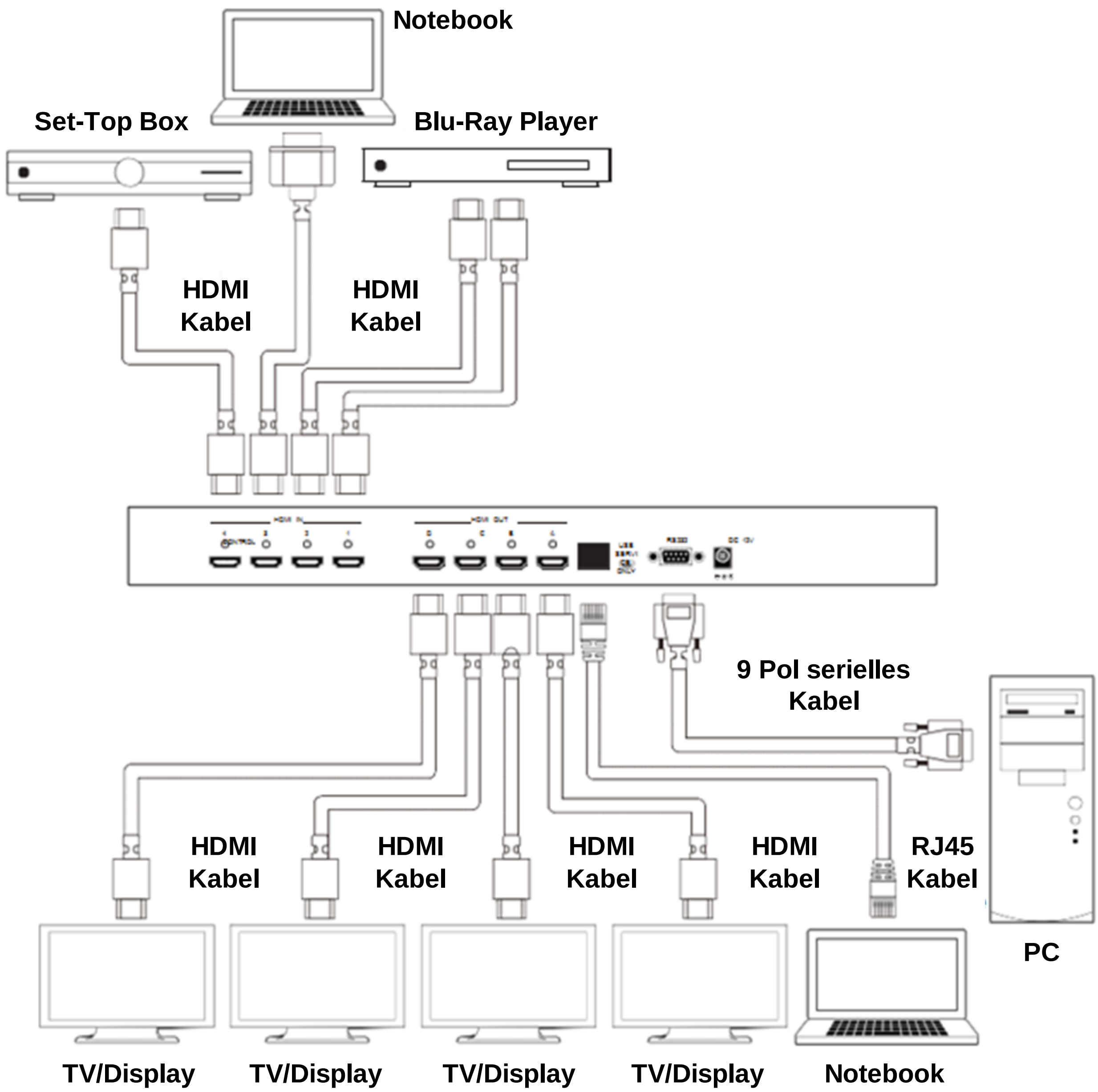


1. **Power**
   Zum EIN/AUS-schalten des Matrix Switch
2. **Info**
   Zeigt die Firmware Version des Switch an
3. **Output A – D & Input 1 – 4**
   Identische Funktion wie Tasten an der Vorderseite
4. **MATRIX / DUAL / WALL** Modus
   Identische Funktion wie Tasten an der Vorderseite
5. **Lock**
   Identische Funktion wie Tasten an der Vorderseite
6. **Mute**
   Schaltet den Ton / die Lautstärke AUS
7. **Navigations-/Auswahltasten**
   Zum Navigieren und Auswählen im OSD
8. **Menu**
   Schaltet das OSD ein
9. **Exit**
   Schaltet das OSD aus
10. **Auflösung für Ausgangssignal**
    Zum schnellen Wechsel der Ausgangsauflösungen
11. **Dual Mode Audio**
    Schaltet zwischen dem Audiosignal für rechte/linke Bildschirmhälfte um, nur für Dual A oder Dual B
12. **Save**
    Identische Funktion wie Tasten an der Vorderseite
13. **FAV. 1 – 4**
    Identische Funktion wie RECALL Taste an der Vorderseite

Nach Abnehmen des Batteriefaches an der Fernbedienung finden Sie 4 DIP Switches um die Default IR Adresse der Fernbedienung umzustellen, z.B. falls Sie mehrere dieser Matrix Switches in einer größeren Umgebung gemeinsam betreiben wollen oder falls Interferenzen mit anderen Fernbedienungen anderer Geräte auftreten. Bevor Sie die DIP Switches umstellen ändern Sie die Einstellung im Switch selber: öffnen Sie das OSD und wählen Sie OTHERS > IR ADDRESS und einen Wert 1 - 3. Stellen Sie anschließend den DIP Switch in der Fernbedienung um.



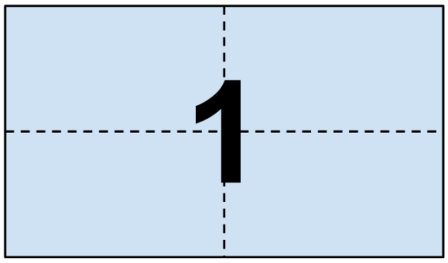
Beispielaufbau



Video Output Modi

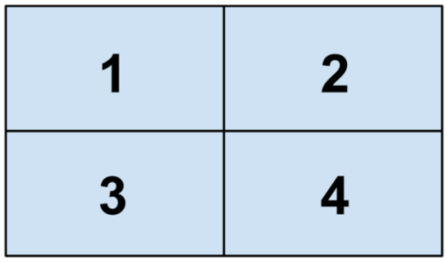
Videowand / Video Wall

Stellt ein Eingangssignal auf einer 2x2 4 Monitorwand dar.



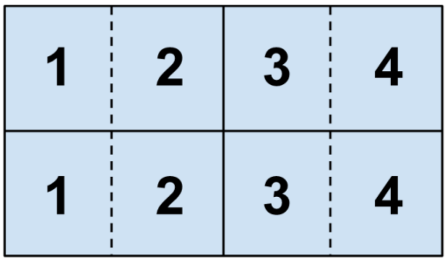
Video Matrix

Schaltet unabhängig 4 Eingänge auf 4 Ausgänge.



Dual Output

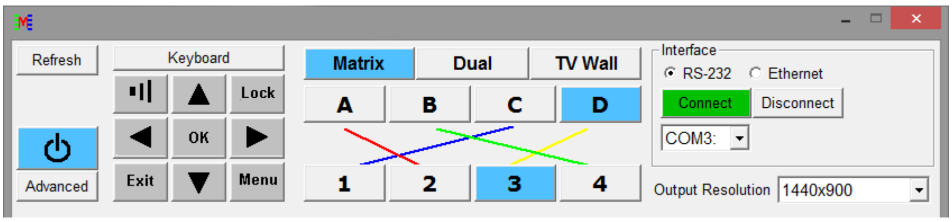
Fügt 2 HDMI Eingänge auf einem HDMI Ausgang zusammen. Die Ausgänge sind gruppiert in Dual A (Ausgang A & B) und Dual B (Ausgang C & D).



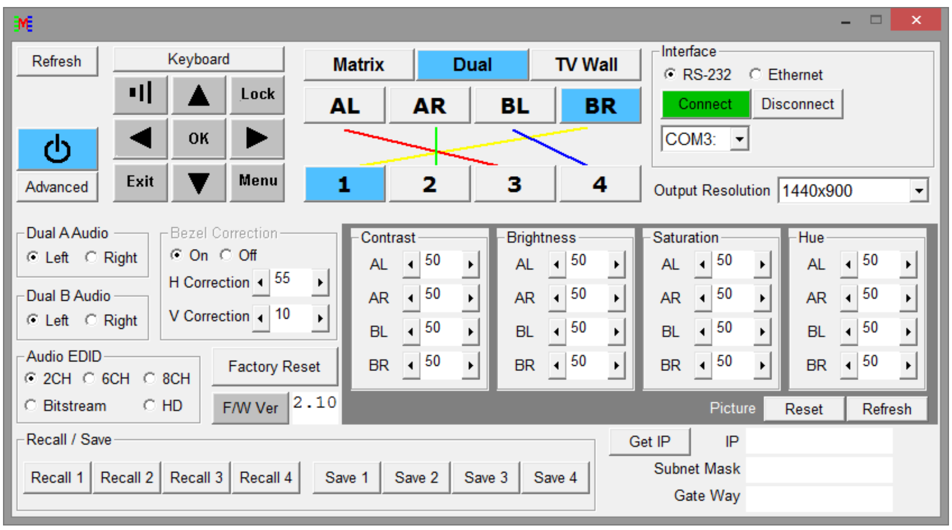
RS-232, Telnet & OSD Fernsteuerung

Der Matrix Switch kann komfortabel via PC Software oder Hyperterminal ferngesteuert werden. Hier finden Sie die erweiterten Einstellungsmöglichkeiten wie Rahmenkorrektur und Bildeinstellungen komfortabel bedienbar. Laden Sie die Software von unserer Webseite herunter. Sie stellt folgendes grafisches Interface zur Verfügung:

Einfaches Control Panel



Erweiterrtes (Advanced) Control Panel



RS-232 Protokolle

Baud Rate: 115200bps
Data Bit: 8 bits
Parity: None
Flow Control: None
Stop Bit: 1

Video Wall Matrix	
PIN	Assignment
1	NC
2	TxD
3	RxD
4	NC
5	GND
6	NC
7	NC
8	NC
9	NC

► ◄

Remote Controller (PC)	
PIN	Definition
1	NC
2	RxD
3	TxD
4	NC
5	GND
6	NC
7	NC
8	NC
9	NC

Telnet Einstellung

Verwenden Sie TCP/IP (Port 23) für Telnet Kommunikation.

RS-232 & Telnet Kommandos

Command	Active	4x4 Matrix Return
AUA001	Dual A Audio channel in Left side	AUA001
AUA002	Dual A Audio channel in Right side	AUA002
AUA999	Check Dual A audio channel status	AUA???
AUB001	Dual B Audio channel in Left side	AUB001
AUB002	Dual B Audio channel in Right side	AUB002
AUB999	Check Dual B audio channel status	AUB???
AUD000	Audio output Off	AUD000
AUD001	Audio output On	AUD001
AUD999	Check audio on/off status	AUD???
AUE000	Audio EDID is LPCM 2CH	AUE000
AUE001	Audio EDID is LPCM 6CH	AUE001
AUE002	Audio EDID is LPCM 8CH	AUE002
AUE003	Audio EDID is BITSTREAM	AUE003
AUE004	Audio EDID is HD	AUE004
AUE999	Check audio EDID setting	AUE???
BEZ000	Bezel Correction OFF	BEZ000
BEZ001	Bezel Correction ON	BEZ001
BEZ999	Check bezel correction on/off status	BEZ???
BEH???	Horizontal (H) Bezel correction???=000 - Maximum	BEH???
BEH998	Check the current Horizontal(H) Bezel correction Maximum value	BEH???
BEH999	Check the current Horizontal(H) Bezel correction setting value	BEH???
BEV???	Vertical (V) Bezel correction???=000- Maximum	BEV???
BEV998	Check the current Vertical(V) Bezel correction Maximum value	BEV???
BEV999	Check the current Vertical(V) Bezel correction setting value	BEV???
BRI???	Setting Brightness	No response
	???=000-100 for matrix mode	
	???=(000-100)+200*(OUT No.-1) for dual/tv wall mode	
	For example: OUT B set the Brightness value to 57 =(57)+200*(2-1) = 257	
BRI99?	Check current Brightness value	BRI???
	99?=999 for matrix mode	
	99?=991-994=OUT1-4 for dual/tv wall mode	
CAL???	RECALL FAV. ???=001-004=FAV.1-4	CAL???

On-Screen-Display (OSD) Menü

Main Menu		Sub Menu	Einstellung	Default
PICTURE (1)	ALL	CONTRAST	0 - 100	50
		BRIGHTNESS	0 - 100	50
		SATURATION	0 - 100	50
		HUE	0 - 100	50
	DUAL	DUAL AL		
		DUAL AR		
		DUAL BL		
		DUAL BR		
	TV WALL	OUT A		
		OUT B		
		OUT C		
		OUT D		
	D/T	RESET		
	ALL	RESET ALL		
		EXIT		
OUTPUT RESOLUTION		480p		720p60
		576p		
		720p50		
		720p60		
		1080i50 (2)		
		1080i60 (2)		
		1080p24		
		1080p50		
		1080p60		
		1024x768		
		1280x800		
		1280x1024		
		1366x768		
		1440x900		
		1600x900		
		1600x1200		
		1680x1050		
		1920x1200		
		EXIT		
AUDIO EDID (3)		LPCM 2CH		LPCM 2CH
		LPCM 6CH		
		LPCM 8CH		
		BIT-STREAM		
		HD		
		EXIT		
OSD SETTINGS		POSITION	LEFT T	LEFT T
			RIGHT T	
			LEFT B	
			RIGHT B	
		H OFFSET	0 - 20	10
		V OFFSET	0 - 20	10
		TRANSPARENCY	0 - 9	4

Main Menu	Sub Menu	Einstellung	Default
OSD SETTINGS (CONTINUED)	MENU TIMEOUT	5 - 50, OFF (4)	8
	INFO.TIMEOUT	5 - 50, OFF	8
	INFO.DISPLAY	ON	ON
		OFF	
	BRIEF INFO	ON	OFF
		OFF	
	EXIT		
HDCP	INPUT (5)	ACCEPT	ACCEPT
		NOT ACCEPT	
	OUTPUT (6)	FOLLOW INPUT	FOLLOW INPUT
		ALWAYS ON	
	EXIT		
BEZEL CORRECTION (7)	CORRECTION	ON	OFF
		OFF	
	H CORRECTION	0 - by output resolution	0
	V CORRECTION	0 - by output resolution	0
	EXIT		
RECALL / SAVE (8)	RECALL	CANCEL	CANCEL
		FAV. 1	
		FAV. 2	
		FAV. 3	
		FAV. 4	
	SAVE	CANCEL	CANCEL
		FAV. 1	
		FAV. 2	
		FAV. 3	
		FAV. 4	
	EXIT		
ETHERNET	IP MODE	DHCP	DHCP
		STATIC	
	STATIC SET	IP	IP
		MASK	
		GATE	
	BYTE1		192
	BYTE2		168
	BYTE3		5
	BYTE4		155
	RE-LINK (9)		
	TIMEOUT (Min.) (10)	5 - 60	10
		OFF	
	EXIT		
OTHERS	IR ADDRESS (11)	0 - 3	0
	EXIT		
FACTORY DEFAULT	YES		NO
	NO		
	EXIT		
INFORMATION	IN/OUT RESOLUTION		
	SOURCE HDCP/AUDIO		
	OUT MODE		
	FIRMWARE VER		
	EXIT		
EXIT			

Anmerkungen:

1 BILD

- Im Matrix Modus werden alle 4 Bilder simultan eingestellt
- Im Dual und Videowand Modus wird jedes Bild individuelle eingestellt.

2 AUSGANG

Im Matrix Modus: Wenn der Ausgang auf 1080i@50Hz oder 1080i@60Hz ist Input 4 inaktiv.

3 AUDIO EDID

Embedded Input Audio EDID Inhalte / Entsprechungen:

- LPCM 2CH = LPCM 2CH
- LPCM 6CH = LPCM 2CH/ 6CH
- LPCM 8CH = LPCM 2CH/ 6CH/ 8CH
- BITSTREAM = LPCM 2CH, AC3, DTS
- HD = LPCM 2CH/ 6CH/ 8CH, AC3, DTS, Dolby Digital Plus, DTS-HD

4 TIMEOUT

Wenn TIMEOUT auf OFF gesetzt wird ist MENU und INFO kontinuierlich auf EIN.

5 HDCP INPUT

- ACCEPT: Unterstützt HDMI Quellen mit HDCP Signal, dies ist die normale Einstellung.
- NOT ACCEPT: Unterstützt keine HDMI Quelle mit HDCP.

6 HDCP OUTPUT:

- FOLLOW INPUT: Wenn die Signalquelle ein HDCP Signal liefert ist auch das Ausgangssignal eines. Und umgekehrt. Wenn im Dual Mode eines der beiden Eingangssignale HDCP liefert, hat auch das Ausgangssignal HDCP.
- ALWAYS ON: Bei dieser Einstellung müssen alle angeschlossenen Displays HDCP unterstützen. Andernfalls wird kein oder ein blinkendes / instabiles Bild angezeigt.

7 Korrektur der Displayrahmen-Verzerrung

Nur verfügbar im Videowand Modus. Korrigiert die Verzerrung durch die Rahmenbreite. Die vorgenommene Einstellung wird bis zum nächsten Aufruf gespeichert.

8 SAVE/RECALL

4 Speicherplätze um Input/Output und die anderen Systemeinsteilungen wie Rahmenkorrektur und Bildeinstellungen zu speichern und wieder abzurufen.

9 Ethernet RE-LINK:

Zur Re-Initialisierung der Netzwerkeinstellungen.

10 Ethernet TIMEOUT:

OFF wählen um die time out Funktion der Ethernet oder Telnet Verbindung zu beenden

Timings

Supported Input Timings

Support Timing
480i@59
480p@60
576i@50
576p@50
720p@25,30,50,60,
1080i@50,60
1080p@24,25,30,50,60
640x480@60,72,75,85
720x400@70
800x600@56,60,72,75,85
1024x768@60,70,75,85
1152x864@70,75
1280x720@60cvt
1280x768@60RB,60,75
1280x800@60RB,60,75
1280x1024@60,60cvt,75
1360x768@60
1366x768@60RB,60
1400x1050@60RB,60
1440x900@60RB,60,75
1600x900@60RB
1600x1200@60
1680x1050@60RB,60
1920x1200@60RB

Supported Output Timings

Support Timing
480p60
576p50
720p50
720p60
1080i50 (Matrix Mode Only)
1080i60 (Matrix Mode Only)
1080p24
1080p50
1080p60
1024x768@60
1280x800@60
1280x1024@60
1366x768@60
1440x900@60
1600x900@60RB
1600x1200@60
1680x1050@60
1920x1200@60RB

Introduction

Merci d'avoir choisi le switch Matrix HDMI 4x4 avec fonction mur d'écrans LINDY (HDMI Video Wall 4x4 Matrix). Le HDMI Video Wall 4x4 Matrix permet aux signaux de quatre différentes sources d'être sélectionnées librement et organisés sur 4 affichages (TV, Moniteur ou Projecteur), dans un des trois modes d'affichages; mur d'écrans, Matrix et dual.

Ce produit riche en fonctionnalités a été conçu pour être utilisé dans différents cas de figures, tel que:

- Affichages publicitaires
- Présentations numériques
- Diffusion & Contrôle
- Surveillance & Contrôle
- Conférence & salle de réunion

Contenu de l'emballage

- HDMI Video Wall 4x4 Matrix
- Télécommande IR
- Alimentation multi-pays 12V 3A (UK/EU/US/AUS)
- CD de pilotes
- Ce manuel

Caractéristiques

- Permet à 4 entrées HDMI d'être affichées en 3 modes différents modes à travers 4 affichages HD
  - Mode mur d'écrans (Video Wall) – affiche une source HDMI à travers un mur d'écrans 2x2
  - Mode Matrix – affiche n'importe quelle source HDMI sur n'importe quel affichage HDMI
  - Mode Dual – affiche 2 sources sur un seul affichage HDMI
- Commutation transparente entre les sources HDMI
- Format de sortie définissable par l'utilisateur
- Contrôlé via panneau avant, télécommande IR, RS-232 et Telnet
- Correction de continuité entre les écrans
- Contraste, luminosité, saturation et teinte d'image ajustable.
- Fonction de mémorisation pour conserver les configurations de 4 utilisateurs
- Peut être utilisé avec les extenders HDMI LINDY pour atteindre des affichages distants

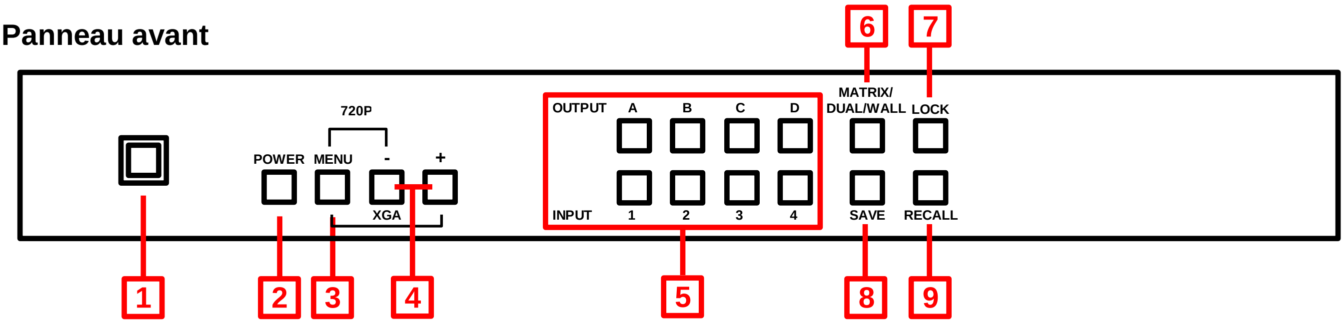
Spécifications

- Ports d'entrée: 4 x HDMI femelle
- Résolutions d'entrée: 480i – 1080p*
- Ports de sorties: 4 x HDMI femelle
- Résolutions de sortie: 480p – 1080p*
- Prise en charge audio: LPCM 2CH, 6CH, 8CH, AC3, DTS, Dolby Digital Plus, Dolby TrueHD & DTS-HD
- Ports de contrôle: RJ45 (Telnet) & Série DB-9 mâle (RS-232)
- Bande passante vidéo: 225MHz/6.75Gbps
- Puissance: 15W
- Poids: 2.2Kg
- Dimensions: 436x247x44mm (LxlxH)

*Note: pour plus d'information au sujet des combinaisons résolutions/fréquences voir la section correspondante en fin de manuel

Vue d'ensemble & utilisation

Panneau avant

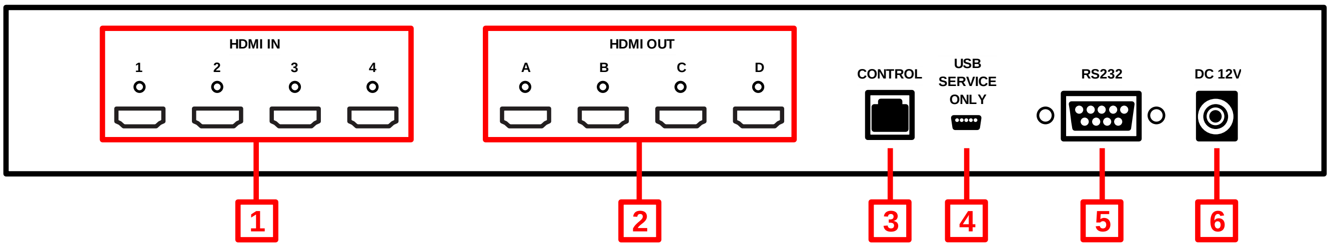


1. **Emplacement du capteur IR**
   Reçoit les commandes IR de la télécommande fournie
2. **Power**
   Mise en/hors tension du Switch Matrix
3. **Menu**
   - Appuyez pour démarrer le menu OSD
   - Appuyez pour sélectionner le menu dans l'OSD
   - Appuyez en même temps que "-" pour définir la sortie en 720p@60Hz
   - Appuyez en même temps que "+" pour définir la sortie en 1024x768@60Hz
4. **Boutons -/+**
   Utilisez ces boutons pour monter/descendre dans le menu OSD
5. **Sélection de canal d'entrée ''input'' (1 – 4) / Canal de sortie ''Output'' (A – D)**
   - En mode Matrix sélectionnez une sortie en appuyant sur un des boutons marqués A – D, puis sélectionnez la sortie qui doit être utilisée en appuyant sur un des boutons marqués 1 – 4. Répétez cela pour chaque sortie. Chaque sortie peut afficher indépendamment une des entrées selon votre sélection.
   - En mode Dual il y a deux groupes, Dual A (Outputs A & B) et Dual B (Outputs C & D). Pour établir Dual A sélectionnez la sortie A puis sélectionnez la première entrée en appuyant sur un des boutons marqués 1 – 4. Sélectionnez à présent la sortie B puis sélectionnez la seconde entrée en appuyant un des boutons marqués 1 – 4, sans répéter votre sélection initiale. Vos deux sélections en entrée s'affichent à présent sur les sorties Output A et Output B. Pour Dual B répétez l'opération pour les sorties Output C et D comme requis. Appuyez en maintenant la sortie Output A ou B pendant 3 secondes pour sélectionner l'entrée audio pour Dual A, ou Output C ou D pour sélectionner l'entrée audio pour Dual B.
   - En mode mur d'écrans sélectionnez l'entrée qui devra s'afficher au travers des 4 écrans (configuration 2x2) en sélectionnant l'entrée Input 1 – 4. L'audio sera disponible uniquement sur la sortie Output A.
6. **Matrix / Dual / Wall Mode**
   Appuyez sur ce bouton pour commuter les différents modes. Si le mode Matrix est sélectionné le bouton sera constamment allumé, pour le mode Dual le bouton restera éteint et pour le mode mur d'écran le bouton clignotera.
7. **Lock**
   Appuyez sur ce bouton une fois pour verrouiller le clavier et la télécommande, appuyez en maintenant pendant 3 secondes pour déverrouiller.
8. **Save**
   Une fois que vous avez configuré le switch Matrix (sélection du mode, combinaisons entrée/sortie, etc.) appuyez sur le bouton Save, les boutons entrée Input 1 – 4 s'allumeront. Appuyez maintenant sur un des boutons d'entrée pour mémoriser votre configuration. Appuyer sur l'entrée 1 permet de

sauver la configuration à l'emplacement 1, la configuration peut être rappelée en appuyant sur le bouton Recall (voir ci-dessous) ou en appuyant sur Fav.1 sur la télécommande IR.

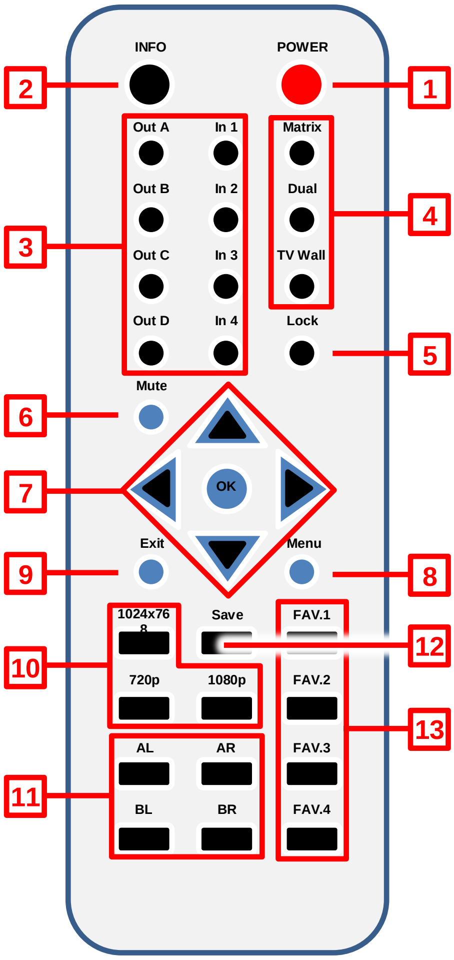
9. **Recall**
   Appuyez sur le bouton Recall, les boutons Input 1 – 4 s'allumeront. Sélectionnez à présent la configuration sauvegardée que vous voulez rappeler en appuyant d'entrée Input 1/2/3/4.

Panneau arrière



7. **HDMI In 1 – 4**
   Connectez vos sources HDMI tel qu'un PC, lecteur Blu-ray, .. etc sur ces ports
8. **HDMI Out A – D**
   Connectez vos affichages HDMI à ces ports
9. **Control**
   A connecter à votre réseau Ethernet pour contrôle en Telnet
10. **USB Service Only**
   Réservé à la configuration/SAV en usine
11. **RS-232**
   Pour la connexion à un PC/Notebook ou contrôle par unité Remote Control Processing
12. **DC 12V**
   Connectez l'alimentation 12V fournie

Télécommande



1. **Power**
   Mise en/hors tension du Switch Matrix
2. **Info**
   Appuyez pour afficher la version du firmware du Matrix
3. **Output A – D & Input 1 – 4**
   Fournit les mêmes fonctions que les boutons du panneau avant
4. **Sélection du mode Matrix/Dual/Wall**
   Fournit les mêmes fonctions que les boutons du panneau avant
5. **Lock**
   Fournit la même fonction que le bouton du panneau avant
6. **Mute**
   Appuyez pour couper la lecture audio sur le port de sortie HDMI
7. **Boutons de navigation/Sélection**
   Appuyez pour naviguer dans le menu the OSD and make sélections
8. **Menu**
   Appuyez pour accéder au menu OSD
9. **Exit**
   Appuyez pour sortir du menu OSD
10. **Résolution en sortie**
    Appuyez pour changer rapidement la resolution en sortie
11. **Mode Dual Audio**
    Commute entre la source audio d'entrée Gauche/Droit, pour Dual A ou Dual B
12. **Save**
    Fournit la même fonction que le bouton sur le panneau avant
13. **FAV. 1 – 4**
    Rappel les configurations mémorisées à l'emplacement correspondant

En retirant le couvercle des piles sur la télécommande IR, vous accéderez aux dip switchs qui permettent de changer l'adresse IR par défaut, ce qui peut être nécessaire si plusieurs Matrix sont utilisés à proximité ou s'il y a des interférences avec un autre appareil IR. Avant de changer la position des dip switchs de leur valeur par défaut ''0'', merci changer les valeurs sur le Matrix auparavant. Entrez dans l'OSD et sélectionnez ''Others'', sélectionnez ''IR Address'' et paramétrez l'adresse désirée 0 – 3.

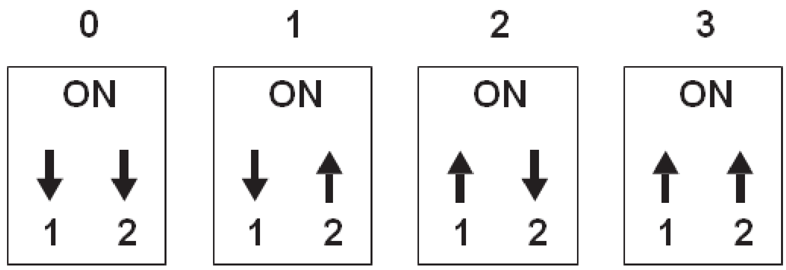
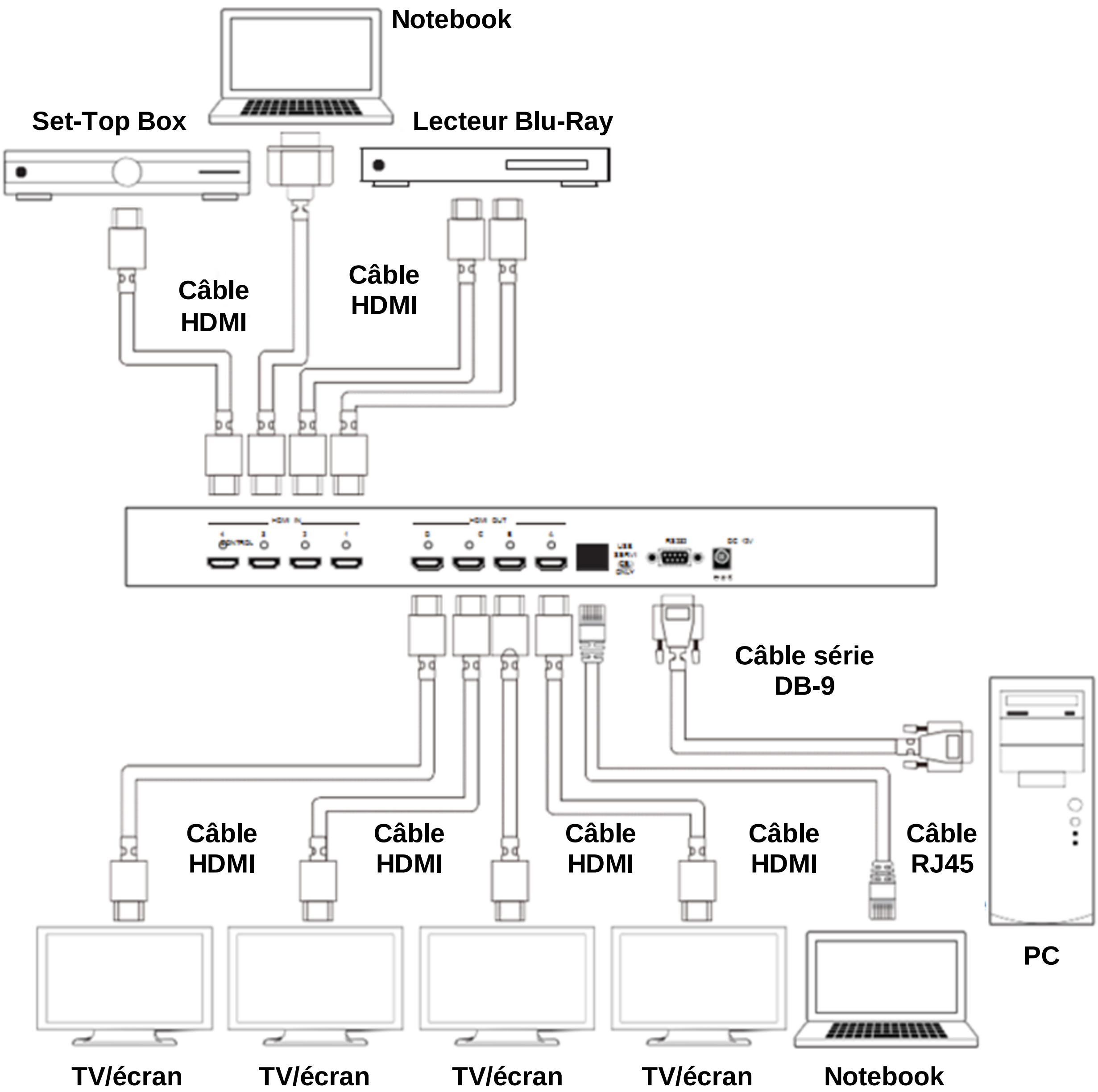
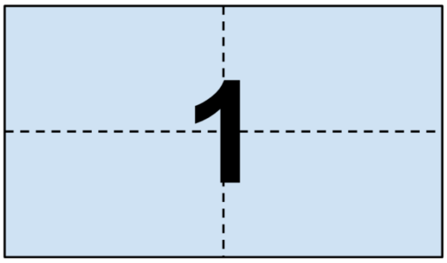


Schéma de connexion

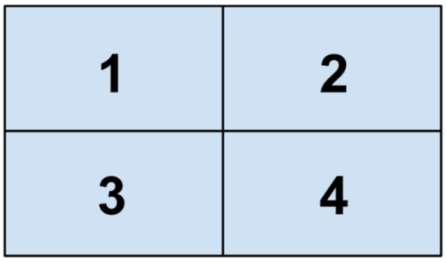


Modes de sortie Vidéo



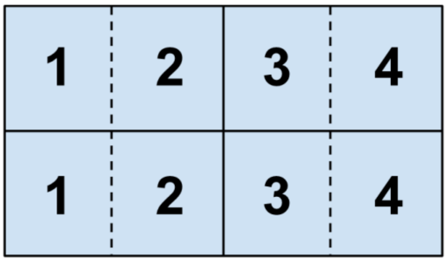
Mur d'écrans

Affiche une source HDMI définissable par l'utilisateur au travers d'un mur d'écran 2x2.



Video Matrix

Affiche n'importe quelle source HDMI sur n'importe quel affichage HDMI.



Sortie Dual

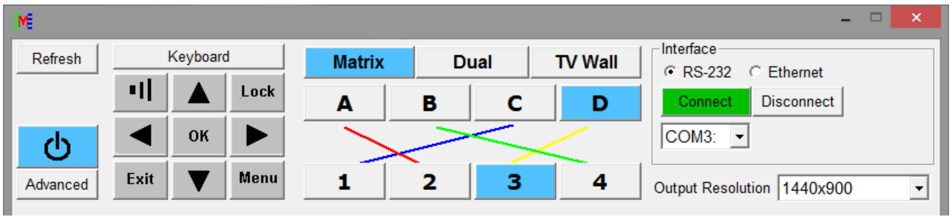
Affiche 2 sources DMI sur une sortie HDMI unique. Les sorties sont groupées de la façon suivante : Dual A (Outputs A & B) et Dual B (Outputs C & D).

Contrôle RS-232, Telnet & OSD

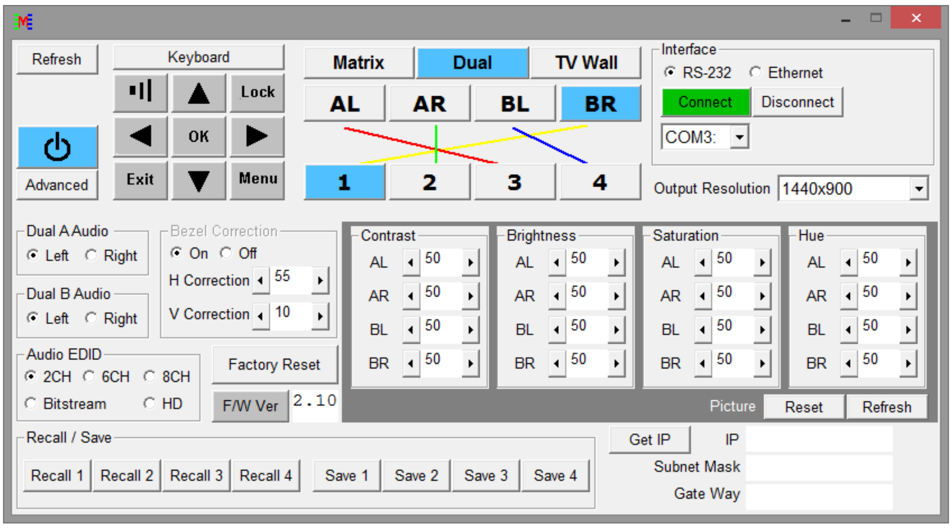
Contrôle RS-232 & Telnet

Le switch Matrix peut également être contrôlé par logiciel PC, qui peut être téléchargé via www.lindy.com, ou en utilisant Hyper Terminal. Le logiciel PC fournit une interface graphique comme indiqué ci-dessous:

Panneau de contrôle simplifié



Panneau de contrôle complet



Protocole RS-232

Baud Rate: 115200bps Data Bit: 8 bits
Parity: None
Flow Control: None
Stop Bit: 1

Video Wall Matrix	
PIN	Assignment
1	NC
2	TxD
3	RxD
4	NC
5	GND
6	NC
7	NC
8	NC
9	NC

► ◄

Remote Controller (PC)	
PIN	Definition
1	NC
2	RxD
3	TxD
4	NC
5	GND
6	NC
7	NC
8	NC
9	NC

Paramètres Telnet

Utilisez TCP/IP (Port 23) pour la communication Telnet.

Commandes RS-232 & Telnet

Commande	Active	Retour 4x4 Matrix
AUA001	Dual A Audio channel in Left side	AUA001
AUA002	Dual A Audio channel in Right side	AUA002
AUA999	Check Dual A audio channel status	AUA???
AUB001	Dual B Audio channel in Left side	AUB001
AUB002	Dual B Audio channel in Right side	AUB002
AUB999	Check Dual B audio channel status	AUB???
AUD000	Audio output Off	AUD000
AUD001	Audio output On	AUD001
AUD999	Check audio on/off status	AUD???
AUE000	Audio EDID is LPCM 2CH	AUE000
AUE001	Audio EDID is LPCM 6CH	AUE001
AUE002	Audio EDID is LPCM 8CH	AUE002
AUE003	Audio EDID is BITSTREAM	AUE003
AUE004	Audio EDID is HD	AUE004
AUE999	Check audio EDID setting	AUE???
BEZ000	Bezel Correction OFF	BEZ000
BEZ001	Bezel Correction ON	BEZ001
BEZ999	Check bezel correction on/off status	BEZ???
BEH???	Horizontal (H) Bezel correction???=000 - Maximum	BEH???
BEH998	Check the current Horizontal(H) Bezel correction Maximum value	BEH???
BEH999	Check the current Horizontal(H) Bezel correction setting value	BEH???
BEV???	Vertical (V) Bezel correction???=000- Maximum	BEV???
BEV998	Check the current Vertical(V) Bezel correction Maximum value	BEV???
BEV999	Check the current Vertical(V) Bezel correction setting value	BEV???
BRI???	Setting Brightness	No response
	???=000-100 for matrix mode	
	???=(000-100)+200*(OUT No.-1) for dual/tv wall mode	
	For example: OUT B set the Brightness value to 57 =(57)+200*(2-1) = 257	
BRI99?	Check current Brightness value	BRI???
	99?=999 for matrix mode	
	99?=991-994=OUT1-4 for dual/tv wall mode	
CAL???	RECALL FAV. ???=001-004=FAV.1-4	CAL???

Menu On-Screen-Display (OSD)

Main Menu		Sub Menu	Adjustments	Default
PICTURE **(1)**	ALL	CONTRAST	0 - 100	50
		BRIGHTNESS	0 - 100	50
		SATURATION	0 - 100	50
		HUE	0 - 100	50
	DUAL	DUAL AL		
		DUAL AR		
		DUAL BL		
		DUAL BR		
	TV WALL	OUT A		
		OUT B		
		OUT C		
		OUT D		
	D/T	RESET		
	ALL	RESET ALL		
		EXIT		
OUTPUT RESOLUTION		480p		720p60
		576p		
		720p50		
		720p60		
		1080i50 **(2)**		
		1080i60 **(2)**		
		1080p24		
		1080p50		
		1080p60		
		1024x768		
		1280x800		
		1280x1024		
		1366x768		
		1440x900		
		1600x900		
		1600x1200		
		1680x1050		
		1920x1200		
		EXIT		
AUDIO EDID **(3)**		LPCM 2CH		LPCM 2CH
		LPCM 6CH		
		LPCM 8CH		
		BIT-STREAM		
		HD		
		EXIT		
OSD SETTINGS		POSITION	LEFT T	LEFT T
			RIGHT T	
			LEFT B	
			RIGHT B	
		H OFFSET	0 - 20	10
		V OFFSET	0 - 20	10
		TRANSPARENCY	0 - 9	4

Main Menu	Sub Menu	Adjustments	Default
OSD SETTINGS (CONTINUED)	MENU TIMEOUT	5 - 50, OFF (4)	8
	INFO.TIMEOUT	5 - 50, OFF	8
	INFO.DISPLAY	ON	ON
		OFF	
	BRIEF INFO	ON	OFF
		OFF	
	EXIT		
HDCP	INPUT (5)	ACCEPT	ACCEPT
		NOT ACCEPT	
	OUTPUT (6)	FOLLOW INPUT	FOLLOW INPUT
		ALWAYS ON	
	EXIT		
BEZEL CORRECTION (7)	CORRECTION	ON	OFF
		OFF	
	H CORRECTION	0 - by output resolution	0
	V CORRECTION	0 - by output resolution	0
	EXIT		
RECALL / SAVE (8)	RECALL	CANCEL	CANCEL
		FAV. 1	
		FAV. 2	
		FAV. 3	
		FAV. 4	
	SAVE	CANCEL	CANCEL
		FAV. 1	
		FAV. 2	
		FAV. 3	
		FAV. 4	
	EXIT		
ETHERNET	IP MODE	DHCP	DHCP
		STATIC	
	STATIC SET	IP	IP
		MASK	
		GATE	
	BYTE1		192
	BYTE2		168
	BYTE3		5
	BYTE4		155
	RE-LINK (9)		
	TIMEOUT (Min.) (10)	5 - 60	10
		OFF	
	EXIT		
OTHERS	IR ADDRESS (11)	0 - 3	0
	EXIT		
FACTORY DEFAULT	YES		NO
	NO		
	EXIT		
INFORMATION	IN/OUT RESOLUTION		
	SOURCE HDCP/AUDIO		
	OUT MODE		
	FIRMWARE VER		
	EXIT		
EXIT			

Notes:

1 Image

- En mode Matrix, toutes les 4 images sont ajustées simultanément.
- En mode Dual/TV Wall, chaque image peut être ajustée individuellement et prend en charge les dernières caractéristiques mémorisées.

2 Sortie (Output)

En mode Matrix si la sortie est en 1080i@50Hz ou 1080i@60Hz l'entrée 4 sera désactivée.

3 AUDIO EDID

Contenu intégré pour l'EDID audio en entrée:

- LPCM 2CH = LPCM 2CH
- LPCM 6CH = LPCM 2CH/ 6CH
- LPCM 8CH = LPCM 2CH/ 6CH/ 8CH
- BITSTREAM = LPCM 2CH, AC3, DTS
- HD = LPCM 2CH/ 6CH/ 8CH, AC3, DTS, Dolby Digital Plus, DTS-HD

4 TIMEOUT

Mis sur OFF signifie que MENU et INFO s'affichent en continu sur l'écran.

5 Entrée HDCP (INPUT)

- ACCEPT: prend en charge les sources utilisant l'HDCP, ceci est le paramétrage par défaut.
- NOT ACCEPT: n'accepte pas une source utilisant l'HDCP.

6 Sorties HDCP (OUTPUT):

- FOLLOW INPUT: Si la source en entrée utilise HDCP, le signal de sortie supportera l'HDCP. Si la source n'utilise pas HDCP le signal de sortie ne supportera pas l'HDCP. En mode Dual, si l'une des sources d'entrée (gauche ou droite) utilise HDCP, la sortie prendra en charge HDCP.
- ALWAYS ON: Un utilisant ce paramètre, tous les TV/moniteurs devront prendre en charge HDCP. En utilisant des affichages ne prenant pas en charge HDCP l'image clignotera lors d'utilisation de contenu HDCP.

7 Correction de continuité (BEZEL)

Ce paramètre ne peut être utilise qu'en mode TV Wall, après ajustement le système mémorisera le paramètre jusqu'au prochain changement.

8 SAVE/RECALL

Utilisé pour mémoriser/rappeler (SAVE/RECALL) les paramètres d'entrée/sortie (input/output) et tous les autres paramètres système tel que la correction de continuité ou d'ajustement d'image.

9 Ethernet RE-LINK:

Après paramétrage du système utilisez cette fonction pour renouveler/rafraichir la connexion réseau.

10 Ethernet TIMEOUT:

Sélectionnez OFF pour désactiver la fonction timeout pour la connexion Ethernet ou Telnet.

Synchronisations

Synchro d’entrée prise en charge

Support Timing
480i@59
480p@60
576i@50
576p@50
720p@25,30,50,60,
1080i@50,60
1080p@24,25,30,50,60
640x480@60,72,75,85
720x400@70
800x600@56,60,72,75,85
1024x768@60,70,75,85
1152x864@70,75
1280x720@60cvt
1280x768@60RB,60,75
1280x800@60RB,60,75
1280x1024@60,60cvt,75
1360x768@60
1366x768@60RB,60
1400x1050@60RB,60
1440x900@60RB,60,75
1600x900@60RB
1600x1200@60
1680x1050@60RB,60
1920x1200@60RB

Synchro de sortie prise en charge

Support Timing
480p60
576p50
720p50
720p60
1080i50 (Matrix Mode Only)
1080i60 (Matrix Mode Only)
1080p24
1080p50
1080p60
1024x768@60
1280x800@60
1280x1024@60
1366x768@60
1440x900@60
1600x900@60RB
1600x1200@60
1680x1050@60
1920x1200@60RB

Introduzione

Vi ringraziamo per aver acquistato la Matrice LINDY Video Wall 4x4. Questo dispositivo consente di selezionare liberamente uno dei 4 segnali in ingresso e trasmetterlo fino ad un massimo di 4 schermi (TV, Monitor o Proiettori), in una delle tre modalità disponibili: Video Wall, Matrice e dual.

Questo prodotto è stato progettato per garantire la massima flessibilità ed è adattabile a diverse applicazioni come:

- Pannelli Pubblicitari
- Presentazioni
- Broadcasting & Controllo
- Sorveglianza & Controllo
- Sale Conferenze & Meeting Room

Contenuto della confezione

- Matrice HDMI Video Wall 4x4
- Telecomando IR
- Alimentatore Multi-Country 12V 3A (UK/EU/US/AUS)
- CD con Driver
- Questo manuale

Caratteristiche

- Permette di visualizzare 4 sorgenti HDMI in 3 modalità differenti su 4 schermi HD:
  - Modalità Video Wall –Visualizza una sorgente HDMI scomponendola su un video wall 2x2
  - Modalità Matrix – Visualizza ogni sorgente HDMI su uno o più schermi HDMI
  - Dual Mode – Visualizza 2 sorgenti su un singolo schermo HDMI
- Commutazione libera fra le sorgenti HDMI
- Scala immagine in uscita definibile dall'utente (User Defined Scaling)
- Controllabile tramite i pulsanti sul pannello, telecomando IR, porta RS-232 e Telnet
- Correzione "Bezel" per migliorare la qualità dell'immagine finale
- Regolazioni dell'immagine: contrasto, luminosità, saturazione e tonalità
- Funzione Memory per salvare un massimo di 4 configurazioni
- Può essere utilizzato con gli Extender HDMI LINDY HDMI per raggiungere schermi remoti

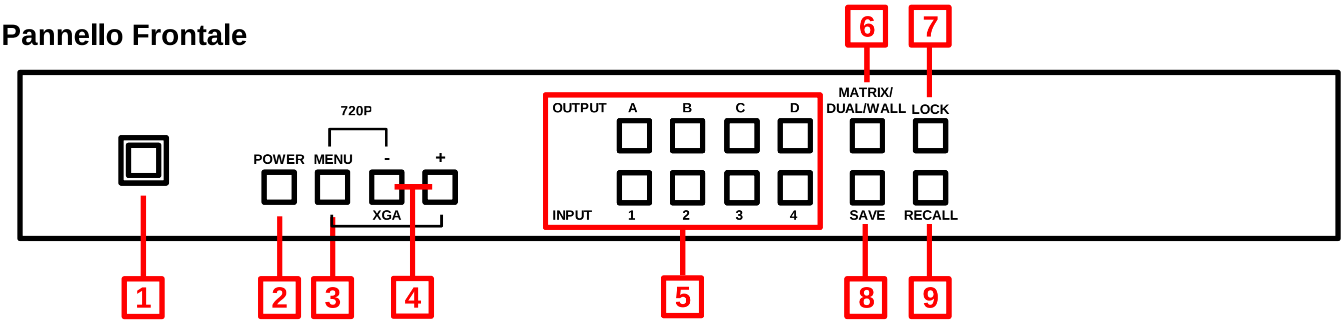
Specifiche

- Ingressi: 4 x HDMI Femmina
- Risoluzioni in ingresso: 480i – 1080p*
- Uscite: 4 x HDMI Femmina
- Risoluzione in uscita: 480p – 1080p*
- Supporto Audio: LPCM 2CH, 6CH, 8CH, AC3, DTS, Dolby Digital Plus, Dolby TrueHD & DTS-HD
- Porte di controllo: RJ45 (Telnet) & Seriale 9 Pin Maschio (RS-232)
- Larghezza di Banda Video: 225MHz/6.75Gbps
- Consumo corrente: 15W
- Peso: 2.2Kg
- Dimensioni: 436x247x44mm (LxPxA)

*NOTA: per maggiori informazioni sulle risoluzioni supportate fate riferimento alla sezione "Frequenze Supportate" alla fine di questo manuale.

Panoramica ed Utilizzo

Pannello Frontale



1. **Finestra IR -** Riceve i segnali IR dal telecomando incluso
2. **Power -** Accende e spegne la matrice (On/Off)
3. **Menu**
   - Premere per visualizzare il menù OSD
   - Premere per effettuare una selezione all'interno del menù OSD
   - Premere con "-" per impostare l'uscita a 720p@60Hz
   - Premere con "+" per impostare l'uscita a 1024x768@60Hz
4. **Pulsanti -/+**

   Utilizzate questi pulsanti per muovervi su e giù nel menù OSD
5. **Selettori Input (1 – 4) / Output (A – D)**
   - In modalità Matrix selezionate un Output premendo uno dei pulsanti A – D, poi selezionate l'Input utilizzando i pulsanti 1 – 4. Ripetete questa procedura per ciascuno Output. Ogni Output può liberamente visualizzare una qualsiasi delle sorgenti in Input in base alla vostra selezione.
   - Nella modalità Dual esistono sono due gruppi: Dual A (Output A & B) e Dual B (Output C & D). Per impostare la sorgente per il gruppo Dual A selezionate Output A e poi la prima sorgente premendo uno dei pulsanti 1 – 4. Ora selezione Output B e poi la relativa sorgente sempre con i pulsanti 1 – 4, senza duplicare la vostra prima selezione. Le due sorgenti selezionate saranno ora visualizzate sulle uscite Output A e Output B. Per il gruppo Dual B ripete la procedura per gli Output C e D. Tenete premuto per 3 secondi i tasti Output A o B per selezionare l'audio in uscita per il gruppo Dual A, o gli Output C o D per selezionare l'audio per il gruppo Dual B.
   - In modalità Video Wall selezionate il canale in input da visualizzare sui 4 schermi in output (configurazione 2x2) utilizzando uno dei tasti Input 1 – 4. Il segnale Audio sarà disponibile solo sul canale Output A.
6. **Matrix / Dual / Wall Mode**

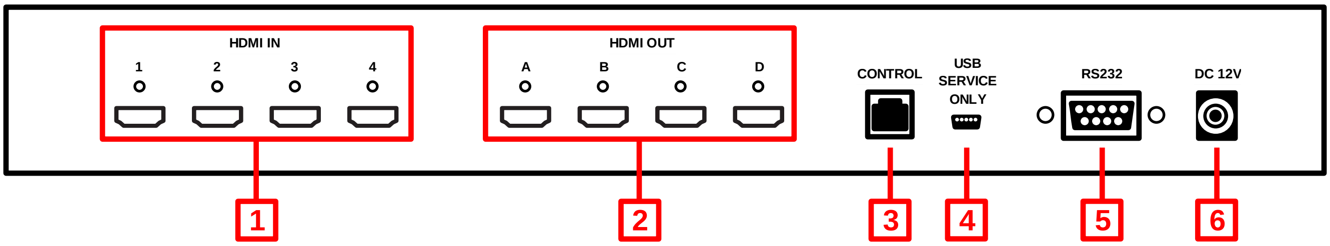
   Premete questo pulsante per commutare tra le varie modalità. Quando la modalità Matrix è selezionata il pulsante rimarrà sempre illuminata, nella modalità Dual non sarà illuminato e in modalità Video Wall lampeggerà.
7. **Lock**

   Premete questo pulsante per bloccare i pulsanti e il telecomando. Tenetelo premuto ancora per 3 secondi per rimuovere il blocco.
8. **Save**

   Una volta configurata la matrice (Seleziona Modalità, combinazione Input/Output.) premete il pulsante Save (i pulsanti Input 1 – 4 si illumineranno) e premete uno dei pulsanti di Input per salvare la configurazione. Premendo il tasto Input 1 la configurazione verrà salvata nello slot 1 e potrà essere richiamata usando il tasto Recall (vedete sotto) o premendo il tasto Fav.1 sul telecomando.
9. **Recall**

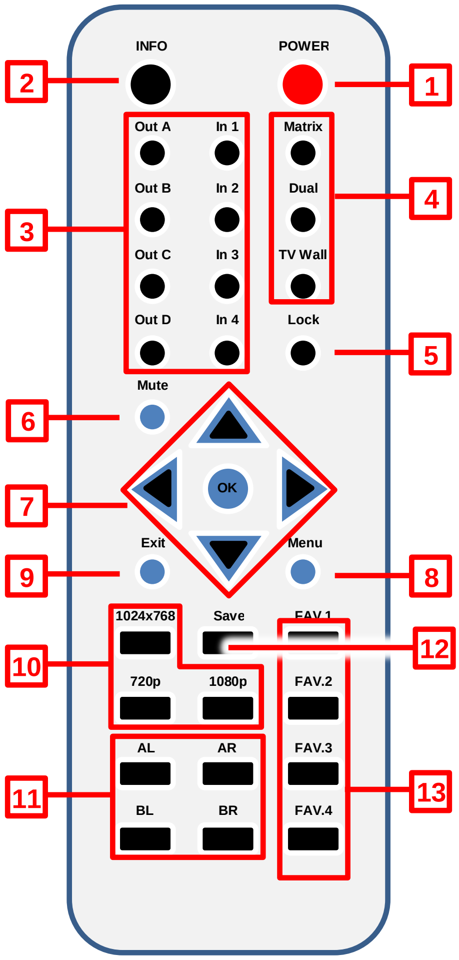
   Premendo il tasto Recall I pulsanti Input 1 – 4 si illumineranno. Ora selezionate la configurazione che volete richiamare premendo uno dei tasti Input (1, 2, 3 o 4)

Pannello Posteriore



1. **HDMI In 1 – 4**
   Collegate a queste porte HDMI le vostre sorgenti come PC, Blu-ray, ecc.
2. **HDMI Out A – D**
   Collegate a queste porte i vostri schermi/proiettori HDMI
3. **Control**
   Collegate questa porta ad una rete Ethernet per utilizzare il controllo via Telnet
4. **USB Service Only**
   Riservato per operazioni di fabbrica
5. **RS-232**
   Utilizzato per la connessione a un PC/Notebook o ad una unità Remote Control Processing
6. **DC 12V**
   Collegate qui l'alimentatore da 12V fornito a corredo.

Telecomando



1. **Power**
   Accende e Spegne la matrice (On/Off)
2. **Info**
   Visualizza la versione del firmware della matrice
3. **Output A – D & Input 1 – 4**
   Stesse funzioni dei pulsanti presenti sul pannello frontale
4. **Selezione modalità Matrix/Dual/Wall**
   Stesse funzioni dei pulsanti presenti sul pannello frontale
5. **Lock**
   Stesse funzioni del pulsante presente sul pannello frontale
6. **Mute**
   Silenzia l'audio della porta output HDMI
7. **Pulsanti Navigazione e Selezione**
   Da utilizzare per navigare nel menu OSD ed effettuare selezioni
8. **Menu**
   Premere per entrare nel menù OSD
9. **Exit**
   Premere per uscire dal menu OSD.
10. **Risoluzione in Output**
    Modifica velocemente la risoluzione in uscita
11. **Dual Mode Audio**
    Commuta fra l'audio dell'input destro e sinistro per Dual A o Dual B
12. **Save**
    Stesse funzioni del pulsante presente sul pannello frontale
13. **FAV. 1 – 4**
    Richiama le impostazioni salvate negli slot da 1 a 4

Rimuovendo il coperchio del vano batterie del telecomando potrete accedere ad un set di dip switch che permette di modificare l'indirizzo IR standard del telecomando nel caso dobbiate controllare più matrici nello stesso ambiente o esistano interferenze sulla stessa frequenza. Prima di modificare le impostazioni del telecomando vi preghiamo di andare nel menu OSD della matrice sezione Others -> IR Address e scegliete una configurazione fra 0 e 3. La stessa andrà poi selezionata per i dip switch del telecomando.

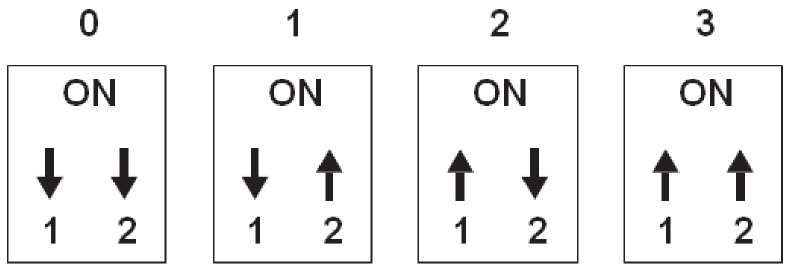
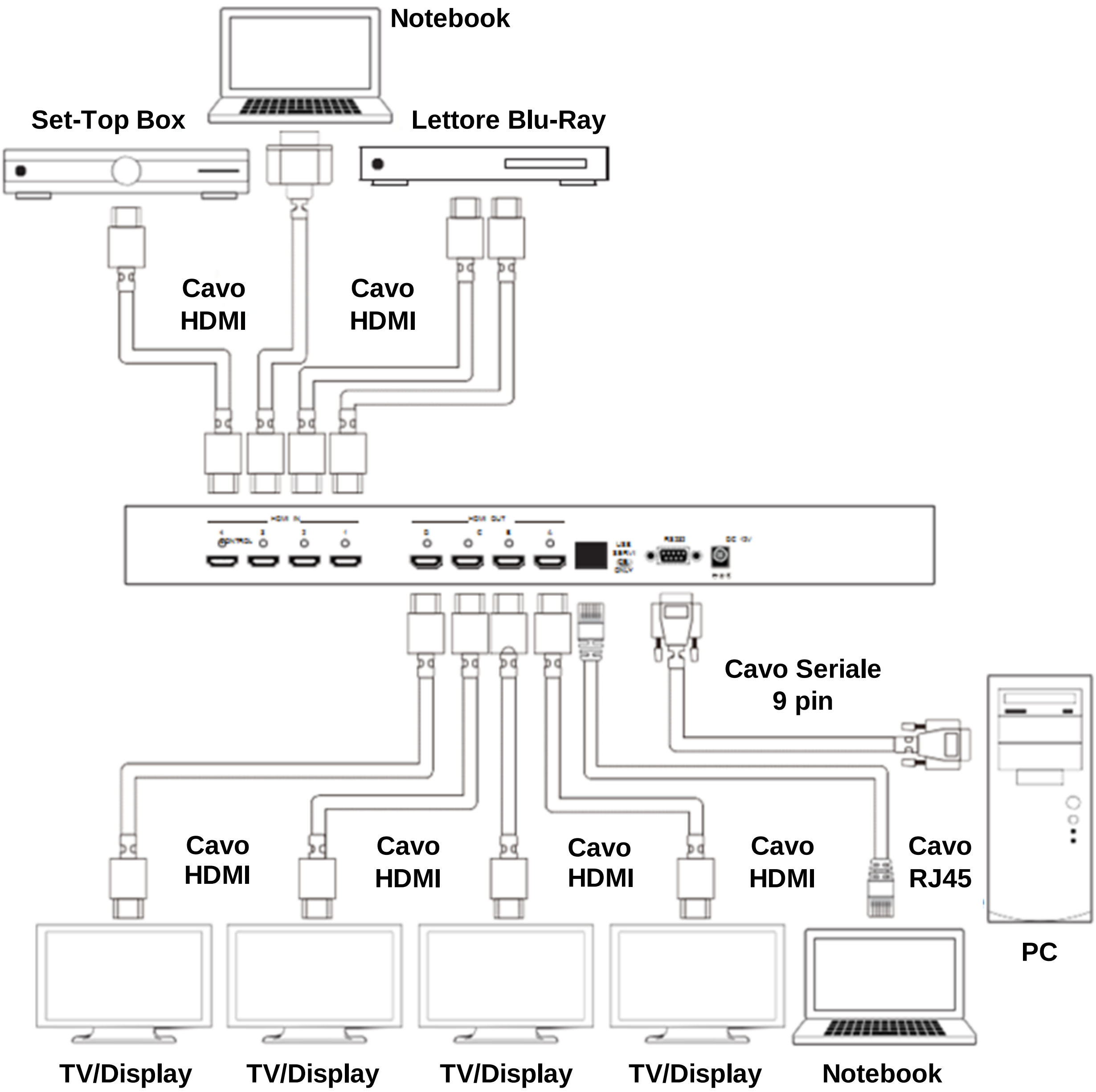


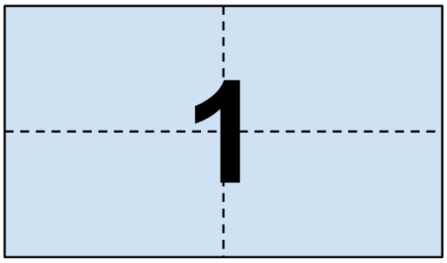
Diagramma di connessione



Modalità Video

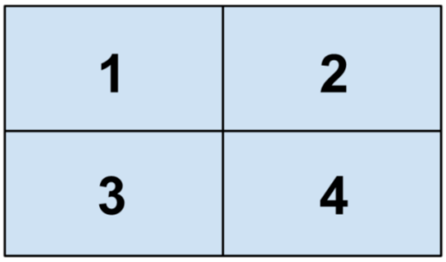
Video Wall

Visualizza una singola sorgente HDMI su un video wall 2x2.



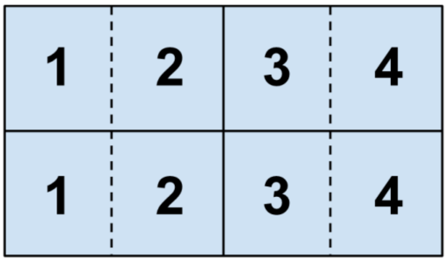
Video Matrix

Visualizza una qualsiasi delle sorgenti HDMI su uno qualsiasi degli schermi HDMI.



Dual Output

Visualizza due sorgenti HDMI contemporaneamente su una solo uscita HDMI. Le uscite sono in Dual A (Output A & B) e Dual B (Output C & D).

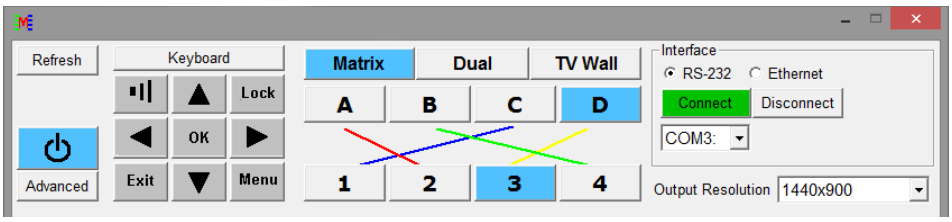


Controllo via RS-232, Telnet & OSD

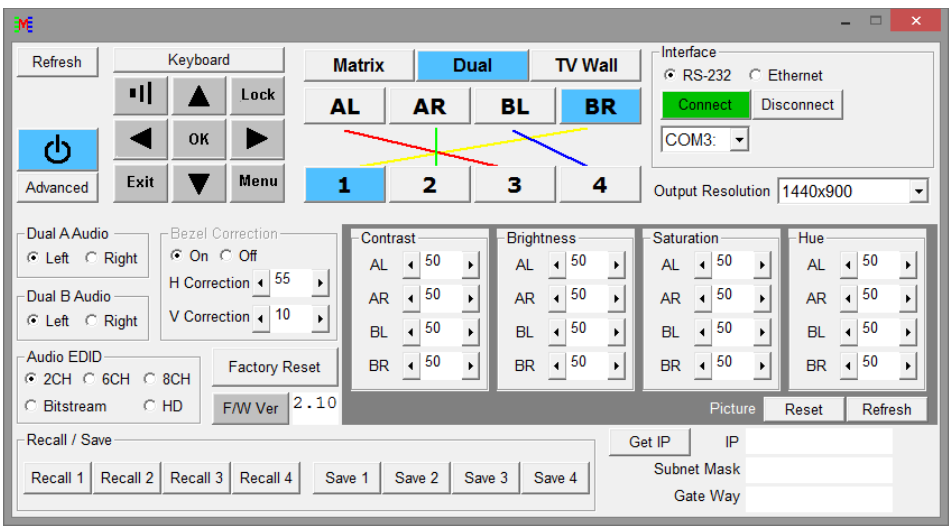
Controllo via RS-232 & Telnet

Questa matrice può essere controllata tramite un software per PC scaricabile dal sito www.lindy.it o utilizzando Hyper Terminal. Il software per PC fornisce una interfaccia grafica come la seguente:

Pannello di controllo semplificato



Pannello di controllo completo



Protocollo RS-232

Velocità di trasmissione: 115200bps
Data Bit: 8 bit
Parità: None
Flow Control: None
Stop Bit: 1

Video Wall Matrix	
PIN	Assignment
1	NC
2	TxD
3	RxD
4	NC
5	GND
6	NC
7	NC
8	NC
9	NC

► ◄

Remote Controller (PC)	
PIN	Definition
1	NC
2	RxD
3	TxD
4	NC
5	GND
6	NC
7	NC
8	NC
9	NC

Impostazione Telnet

Usate il protocollo TCP/IP (Port 23) per la connessione Telnet

Comandi RS-232 & Telnet

Command	Active	4x4 Matrix Return
AUA001	Canale Audio Dual A sul lato sinistro	AUA001
AUA002	Canale Audio Dual A sul lato destro	AUA002
AUA999	Controllo stato canale audio Dual A	AUA???
AUB001	Canale Audio Dual B sul lato sinistro	AUB001
AUB002	Canale Audio Dual B sul lato destro	AUB002
AUB999	Controllo stato canale audio Dual B	AUB???
AUD000	Uscita Audio Off	AUD000
AUD001	Uscita Audio On	AUD001
AUD999	Controllo stato Audio (on/off)	AUD???
AUE000	L'EDID Audio è LPCM 2CH	AUE000
AUE001	L'EDID Audio è LPCM 6CH	AUE001
AUE002	L'EDID Audio è LPCM 8CH	AUE002
AUE003	L'EDID Audio è BITSTREAM	AUE003
AUE004	L'EDID Audio è HD	AUE004
AUE999	Controllo delle impostazioni Audio EDID	AUE???
BEZ000	Bezel Correction OFF	BEZ000
BEZ001	Bezel Correction ON	BEZ001
BEZ999	Controllo stato bezel correction (on/off)	BEZ???
BEH???	Bezel Correction Orizzontale (H)???=000 - Max	BEH???
BEH998	Controllo valore max correzione Bezel orizzontale(H)	BEH???
BEH999	Controllo valore impost. correzione Bezel Orizzontale(H)	BEH???
BEV???	Bezel Correction Verticale (V)???=000- Max	BEV???
BEV998	Controllo valore max correzione Bezel Verticale(V)	BEV???
BEV999	Controllo valore impost. correzione Bezel Verticale(V)	BEV???
BRI???	Impostazione luminosità Setting Brightness	No response
	???=000-100 per modalità Matrix	
	???=(000-100)+200*(OUT No.-1) per modalità dual/video wall	
	Esempio: per impostare OUT B ad un valore di luminosità 57 =(57)+200*(2-1) = 257	
BRI99?	Controlla il valore attuale di luminosità	BRI???
	99?=999 per la modalità Matrice	
	99?=991-994=OUT1-4 per modalità dual/video wall	
CAL???	RECALL FAV. ???=001-004=FAV.1-4	CAL???

On-Screen-Display (OSD) Menu

Menu Principale		Sub Menu	Range valori	Default
PICTURE (1)	ALL	CONTRAST	0 - 100	50
		BRIGHTNESS	0 - 100	50
		SATURATION	0 - 100	50
		HUE	0 - 100	50
	DUAL	DUAL AL		
		DUAL AR		
		DUAL BL		
		DUAL BR		
	TV WALL	OUT A		
		OUT B		
		OUT C		
		OUT D		
	D/T	RESET		
	ALL	RESET ALL		
		EXIT		
OUTPUT RESOLUTION		480p		720p60
		576p		
		720p50		
		720p60		
		1080i50 (2)		
		1080i60 (2)		
		1080p24		
		1080p50		
		1080p60		
		1024x768		
		1280x800		
		1280x1024		
		1366x768		
		1440x900		
		1600x900		
		1600x1200		
		1680x1050		
		1920x1200		
		EXIT		
AUDIO EDID (3)		LPCM 2CH		LPCM 2CH
		LPCM 6CH		
		LPCM 8CH		
		BIT-STREAM		
		HD		
		EXIT		
OSD SETTINGS		POSITION	LEFT T	LEFT T
			RIGHT T	
			LEFT B	
			RIGHT B	
		H OFFSET	0 - 20	10
		V OFFSET	0 - 20	10
		TRANSPARENCY	0 - 9	4

Menu Principale	Sub Menu	Range valori	Default
OSD SETTINGS (CONTINUED)	MENU TIMEOUT	5 - 50, OFF **(4)**	8
	INFO.TIMEOUT	5 - 50, OFF	8
	INFO.DISPLAY	ON	ON
		OFF	
	BRIEF INFO	ON	OFF
		OFF	
	EXIT		
HDCP	INPUT **(5)**	ACCEPT	ACCEPT
		NOT ACCEPT	
	OUTPUT **(6)**	FOLLOW INPUT	FOLLOW INPUT
		ALWAYS ON	
	EXIT		
BEZEL CORRECTION **(7)**	CORRECTION	ON	OFF
		OFF	
	H CORRECTION	0 - by output resolution	0
	V CORRECTION	0 - by output resolution	0
	EXIT		
RECALL / SAVE **(8)**	RECALL	CANCEL	CANCEL
		FAV. 1	
		FAV. 2	
		FAV. 3	
		FAV. 4	
	SAVE	CANCEL	CANCEL
		FAV. 1	
		FAV. 2	
		FAV. 3	
		FAV. 4	
	EXIT		
ETHERNET	IP MODE	DHCP	DHCP
		STATIC	
	STATIC SET	IP	IP
		MASK	
		GATE	
	BYTE1		192
	BYTE2		168
	BYTE3		5
	BYTE4		155
	RE-LINK **(9)**		
	TIMEOUT (Min.) **(10)**	5 - 60	10
		OFF	
	EXIT		
OTHERS	IR ADDRESS **(11)**	0 - 3	0
	EXIT		
FACTORY DEFAULT	YES		NO
	NO		
	EXIT		
INFORMATION	IN/OUT RESOLUTION		
	SOURCE HDCP/AUDIO		
	OUT MODE		
	FIRMWARE VER		
	EXIT		
EXIT			

Notes:

1 Picture

- In modalità Matrix tutte e quattro le immagini vengono regolate simultaneamente.
- In modalità Dual/Video Wall ogni immagine può essere regolata singolarmente e l'ultima regolazione viene memorizzata.

2 Output

Nella modalità Matrix se l'Output è impostato a 1080i@50Hz o 1080i@60Hz l'Input 4 verrà disabilitato.

3 AUDIO EDID

EDID Audio integrati:

- LPCM 2CH = LPCM 2CH
- LPCM 6CH = LPCM 2CH/ 6CH
- LPCM 8CH = LPCM 2CH/ 6CH/ 8CH
- BITSTREAM = LPCM 2CH, AC3, DTS
- HD = LPCM 2CH/ 6CH/ 8CH, AC3, DTS, Dolby Digital Plus, DTS-HD

4 TIMEOUT

Impostarlo su OFF significa che il MENU e le INFO verranno continuamente visualizzati a schermo.

5 HDCP INPUT

- ACCEPT: accetta sorgenti con codifica HDCP (impostazione normale)
- NOT ACCEPT: non accetterà sorgenti che usano la codifica HDCP.

6 HDCP OUTPUT:

- FOLLOW INPUT: Se la sorgente utilizza la codifica HDCP il segnale in uscita supporter l'HDCP. Se la sorgente non utilizza l'HDCP l'uscita non supporterà l'HDCP. In modalità Dual se ciascuna delle due sorgenti (destra e sinistra) supporta l'HDCP allora anche l'uscita supporterà l'HDCP.
- ALWAYS ON: abilitando questa impostazione ognuno dei TV/Monitor collegati dovrà supportare l'HDCP. Utilizzando schermi che non supportano l'HDCP l'immagine continuerà a lampeggiare quando viene visualizzato un contenuto protetto da HDCP.

7 BEZEL CORRECTION

Questa impostazione è supportata solo in modalità Video Wall e dopo ogni regolazione l'impostazione verrà salvata fino alla successiva attivazione

8 SAVE/RECALL

La funzione SAVE/RECALL serve per salvare e richiamare tutte le regolazione associate ad ogni input/output e tutte le impostazioni di Sistema come la bezel correction o la regolazione dell'immagine.

9 Ethernet RE-LINK:

Quando abilitata il Sistema utilizza questa impostazione per riconnettere la connessione di rete.

10 Ethernet TIMEOUT:

Impostate questa funzione su OFF per eliminare il time out delle Ethernet e Telnet.

Frequenze supportate

Frequenze Supportate in Input

Frequenze Supportate
480i@59
480p@60
576i@50
576p@50
720p@25,30,50,60,
1080i@50,60
1080p@24,25,30,50,60
640x480@60,72,75,85
720x400@70
800x600@56,60,72,75,85
1024x768@60,70,75,85
1152x864@70,75
1280x720@60cvt
1280x768@60RB,60,75
1280x800@60RB,60,75
1280x1024@60,60cvt,75
1360x768@60
1366x768@60RB,60
1400x1050@60RB,60
1440x900@60RB,60,75
1600x900@60RB
1600x1200@60
1680x1050@60RB,60
1920x1200@60RB

Frequenze Supportate in Output

Frequenze Supportate
480p60
576p50
720p50
720p60
1080i50 (Matrix Mode Only)
1080i60 (Matrix Mode Only)
1080p24
1080p50
1080p60
1024x768@60
1280x800@60
1280x1024@60
1366x768@60
1440x900@60
1600x900@60RB
1600x1200@60
1680x1050@60
1920x1200@60RB

CE/FCC Statement

CE Certification

This equipment complies with the requirements relating to Electromagnetic Compatibility Standards EN55022/EN55024 and the further standards cited therein. It must be used with shielded cables only.
It has been manufactured under the scope of RoHS compliance.

CE Konformitätserklärung

Dieses Produkt entspricht den einschlägigen EMV Richtlinien der EU für IT-Equipment und darf nur zusammen mit abgeschirmten Kabeln verwendet werden.
Diese Geräte wurden unter Berücksichtigung der RoHS Vorgaben hergestellt.
Die formelle Konformitätserklärung können wir Ihnen auf Anforderung zur Verfügung stellen

FCC Certification

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.
You are cautioned that changes or modification not expressly approved by the party responsible for compliance could void your authority to operate the equipment.
This device complies with part 15 of the FCC Rules.
Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

LINDY Herstellergarantie – Hinweis für Kunden in Deutschland

LINDY gewährt für dieses Produkt über die gesetzliche Regelung in Deutschland hinaus eine zweijährige Herstellergarantie ab Kaufdatum. Die detaillierten Bedingungen dieser Garantie finden Sie auf der LINDY Website aufgelistet bei den AGBs.

Recycling Information

WEEE (Waste of Electrical and Electronic Equipment),
Recycling of Electronic Products

Europe, United Kingdom

In 2006 the European Union introduced regulations (WEEE) for the collection and recycling of all waste electrical and electronic equipment. It is no longer allowable to simply throw away electrical and electronic equipment. Instead, these products must enter the recycling process.
Each individual EU member state has implemented the WEEE regulations into national law in slightly different ways. Please follow your national law when you want to dispose of any electrical or electronic products. More details can be obtained from your national WEEE recycling agency.

Germany / Deutschland

Die Europäische Union hat mit der WEEE Direktive Regelungen für die Verschrottung und das Recycling von Elektro- und Elektronikprodukten geschaffen. Diese wurden im Elektro- und Elektronikgerätegesetz – ElektroG in deutsches Recht umgesetzt. Dieses Gesetz verbietet das Entsorgen von entsprechenden, auch alten, Elektro- und Elektronikgeräten über die Hausmülltonne! Diese Geräte müssen den lokalen Sammelsystemen bzw. örtlichen Sammelstellen zugeführt werden! Dort werden sie kostenlos entgegen genommen. Die Kosten für den weiteren Recyclingprozess übernimmt die Gesamtheit der Gerätehersteller.

France

En 2006, l'union Européenne a introduit la nouvelle réglementation (DEEE) pour le recyclage de tout équipement électrique et électronique.
Chaque Etat membre de l' Union Européenne a mis en application la nouvelle réglementation DEEE de manières légèrement différentes. Veuillez suivre le décret d'application correspondant à l'élimination des déchets électriques ou électroniques de votre pays.

Italy

Nel 2006 l'unione europea ha introdotto regolamentazioni (WEEE) per la raccolta e il riciclo di apparecchi elettrici ed elettronici. Non è più consentito semplicemente gettare queste apparecchiature, devono essere riciclate. Ogni stato membro dell' EU ha tramutato le direttive WEEE in leggi statali in varie misure. Fare riferimento alle leggi del proprio Stato quando si dispone di un apparecchio elettrico o elettronico.
Per ulteriori dettagli fare riferimento alla direttiva WEEE sul riciclaggio del proprio Stato.

LINDY No 38131

1st Edition, March 2014

www.lindy.com

Tested to Comply with
FCC Standards
For Home and Office Use!